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Content and Administration of a Medical Care Program

A Brief of the Report on Medical Care in a National Health Program *

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BEFORE a professional body such as the American Public Health Association, there is little purpose in belaboring the point that the great unsolved problem in public health is one of making available to every American citizen the full benefits of good medical care. The very fact that this problem has already taken on the status of a political issue is a more convincing indication of its importance than any argument or body of statistics that could be adduced. The intemperate support of limited remedial measures by partisan groups, as well as the blind opposition to any change in the *status quo* encountered from other sources, clearly indicate the need for responsible agencies to give technical direction to the public movement for better medical care. The American Public Health Association should be peculiarly fitted to give such direction, since its members are familiar with the intimate character of medical service and can see the problem from the point of view of both those who receive and those who provide health services.

Mindful of the urgency in this matter, the Committee on Administrative Practice at its meeting in November, 1943, directed its Subcommittee on Medical Care to draft a set of principles which would describe the content of a suitable medical care program and methods of administration. Inasmuch as a great wealth of material had already been accumulated through basic studies and as a result of practical experience in the operation of limited medical care programs, it was decided that the first job for the subcommittee to undertake should be to analyze these findings rather than engage on additional research studies. The subcommittee was fortunate in having as members individuals who had participated in former studies, others who

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were familiar with the experience gained in various organized methods for distributing medical care, and still others responsible for medical care programs now in operation—in brief, its composition included both students of the problem and practical administrators.

The subcommittee met several times during the past twelve months. After exploring in detail many of the problems involved in the design of a national medical care program, the group felt that its thinking had reached the stage at which a statement of principles could be formulated. A preliminary report setting forth these principles has been released. It was published in the September, 1944, issue of the *American Journal of Public Health,* with the thought that the entire membership of the Association might have ample opportunity to study the proposals in advance of formal action. After some modification, this report was accepted by the Committee on Administrative Practice and passed on to the Governing Council with suggestion that it be considered as an expression of Association policy. There follows a brief summary of the report, together with a few of the underlying considerations.

The objective of a national medical care program should be to make available to the entire population, regardless of the financial means of the individual, the family, or the community, all essential medical services. Such services must be of high standard and rendered under conditions acceptable to the public and the professions concerned. In scope they should include hospital care, the services of physicians, laboratory and diagnostic services, nursing care, essential dental services, and prescribed drugs. Because of inadequacies of personnel and facilities, all of these measures cannot be provided immediately to the whole population, but their complete development within ten years may be taken as a goal. Regardless of temporary shortcomings, a beginning should be made now in the provision of services to the extent that available personnel, facilities, and administrative technics make possible. Later, but as rapidly as possible, the program should be expanded to the intended scope.

An achievement of the objectives of a national medical care program, the subcommittee thought, would require simultaneous attack on five main fronts; namely, distribution of costs, development of administrative organization to provide the service, training of personnel, construction of facilities, and improvement of knowledge.

The basic problem in providing more and better medical care for persons of all circumstances is that of distributing costs over the entire population in proportion to ability to pay. Already the phenomenal success of non-profit voluntary insurance against hospitalization costs makes it quite apparent that the people desire a convenient way of paying for medical care, and especially a way that will give protection against the risk of heavy bills. Despite such achievements, there is ample reason for believing that voluntary insurance unaided will not be able to include the whole population for all of its medical needs.

The subcommittee therefore came to the conclusion that health services must be financed by compulsory social insurance contributions supplemented by general taxation, or by general taxation alone. Financing through social insurance contribution alone might result in the exclusion of farmers or self-employed persons, or still other occupational groups, who need the advantages of prepayment as much as industrial and commercial employees. Certain of the long-term disabling conditions, such as mental disorders and tuberculosis, had better be financed for the present at least, as

they now are, out of general revenue separate from the provisions for general illness.

The subcommittee was unwilling to compromise the principle that service should be of high quality and available to all persons regardless of economic circumstances or geographic location. It also recognized the desirability of decentralized operation, with participation by state and local authorities. Because of the great mobility of our population and the wide variation in economic resources among the several states and their political subdivisions, an unrelated series of state or local plans cannot assure a suitable service national in scope. Only the federal government through its broad powers of taxation can compensate for those differences in income which exist among individuals and among the lesser units of government.

After the fund has been collected through social insurance or taxation, arrangements must be made whereby the institutions and professions rendering service may be paid for their efforts. The great bulk of service in this country today is performed by voluntary hospitals and private practitioners; they need to be brought into the scheme. Methods of paying hospitals for their services have been developed under extensive voluntary insurance plans; these methods can be readily adapted to the requirements of a national health program. The problem of compensation for professional service is more complex. Inasmuch as fee-for-service has been a tradition, this with suitable controls may have to be accepted as one of the methods; however, the inherent defects in fee-for-service should be faced, and it should be recognized from the beginning that unsatisfactory experience may in time force more extensive utilization of other methods.

The subcommittee believes that the principle of free choice must be preserved for the public, the professions, and the institutions; namely, that patients shall be at liberty to select their physicians from among all who participate, subject to acceptance by the physicians; and to select their hospitals, subject to the practices and the staff arrangements of the hospitals; and that all qualified physicians and hospitals shall be eligible to participate in the program. This principle should apply to group as well as to individual action.

At the present time public medical care functions are being discharged through a host of agencies at all levels of government. The effective operation of a national program requires that at each level of government—federal, state, and local—administration, or the supervision of administration, should be by a single responsible agency. Because of their strategic position in the framework of government, their record of successful administrative experience, and their interest in prevention as well as cure of disease, health agencies are believed best fitted to discharge the responsibilities incident to administration of a nation-wide medical care program. However, any agency that expects to carry major responsibilities in a program of such magnitude and complexity should begin preparing itself now for the position it intends to occupy. When the public comes to consider where administrative responsibilities for a national health service shall be lodged, it will be influenced in large measure by the readiness for such duties displayed by the agency, by the initiative taken in fitting itself for the task, and by the eagerness shown in wanting to accept these responsibilities.

Perhaps of more interest to the members of this Association than the operation of a plan at the national level is its management locally. It is here where the program functions in relation to the needs of the people and where

the true measure of satisfaction is determined. Irrespective of whether the national program be a federal scheme or federally aided state schemes, it must operate through units of control that are in direct contact with the people who receive the service, and with the facilities and personnel through which the service is delivered.

The subcommittee gave thought to the proper size of jurisdiction for local service and to the relative advantages and disadvantages of state administrative districts as compared with districts composed of one or more existing political units. If, as the subcommittee believes, local health agencies should take a prominent part in the administration of medical care, it is difficult to escape the conclusion that material modification in the boundaries of local health jurisdictions must be effected in most, if not all, of the states. For the most part health agencies are built upon a foundation of law enforcement. Consequently, health jurisdictions conform, in the main, to local political boundaries. Many of these areas are too limited in population for efficient administration and their resources are so limited as to make it difficult for them to make any substantial contribution to a program, such as medical care, which involves large sums of money. Furthermore, neither hospitals nor physicians have been accustomed to draw their clientele from within the confines of existing local political subdivisions. In other words, medical service must continue to follow the natural lines of trade areas. Health officers are rapidly coming to the belief that public health jurisdictions also must be reshaped in similar fashion. Whether these areas be made administrative districts of the state, or become new political entities with considerable degree of local autonomy, must be left for determination by the state and local authorities concerned. In reality a decision either way is not of great importance from the standpoint of developing a suitable framework for medical service.

Under an acceptable plan of medical care the hospital must occupy a central position. In addition to providing beds for the more serious cases of illness, its facilities should be generally available for diagnosis and treatment of ambulatory patients and for appraisals of physical status. Before these purposes can be accomplished, it will be necessary to construct additional hospital accommodations in many rural areas where such facilities are nonexistent or wholly inadequate. Even in the larger centers of population a high proportion of present hospitals are in need of extensive alteration, or replacement by more modern structures.

When bringing the total bed capacity of hospitals throughout the country up to actual requirements, a concerted effort should be made to replace the individual and haphazard arrangement that has characterized hospital evolution to date by a planned development under national and state guidance. The scope of service in existing and proposed hospitals should be arranged so as to meet the needs of the localities in which they are situated and fit into both the state and the regional scheme of hospitalization. Under such a plan the modern medical center as well as the outpost first aid station will have its place.

Closely related to the location of hospitals is the placement of physicians and other medical personnel. A hospital without a competent medical staff is of questionable value, but on the other hand experience has shown repeatedly that a community cannot expect to attract and retain qualified physicians in sufficient numbers unless opportunities for hospital practice are afforded. A large part of the maldistribution of physicians could be corrected in short order if advantage

should be taken of the unusual opportunities that will attend demobilization of the armed forces for placing physicians where they are most needed. The presence of hospital facilities, together with the assurance that funds are available for the payment of medical bills, will go a long way toward effecting a permanent distribution of physicians in proportion to the population. For the more remote and sparsely settled areas some measure of direct aid in addition to the foregoing broad provisions may be necessary. Such instances should not be numerous and neither should the costs entailed be burdensome.

Under an expanded medical care program shortages of personnel no doubt will be experienced for most categories of service. This is likely to occur especially if the present pattern of practice is carried over into a national program. Dentistry perhaps represents the most critical situation. While this general subject of personnel requirements and methods for meeting probable needs deserves further study, the subcommittee pursued the matter far enough to be impressed with wastages of resources which normally occur. The average physician in private practice does not reach his maximum performance until age 40 and, after a period of about 5 years, a falling-off in output begins. The time of nurses consumed in maid and clerical services has been a subject of study and unfavorable comment for years. Now it would appear that many of the operations done by dentists could be assigned to persons of less training than that prescribed for graduation from dental schools. Much more work needs to be done in the way of job analyses before precise statements can be made regarding the extent to which subsidiary personnel can be used to lessen the demands for those in higher educational brackets. Likewise, a great amount of thought needs to be given to the training of auxiliary personnel themselves, and their certification for prescribed types of work. At present this whole matter is in a chaotic state. Until the entire subject of auxiliary workers has been fully explored it will be difficult to make calculations as to the needs for personnel with more extensive preparation.

Of all the groups that contribute to medical service the basic professional education of physicians seems to have been fairly well stabilized at sufficiently high level to assure good quality of medical graduates. If used to full capacity the present number of medical schools, or possibly with moderate increase, should be able to satisfy the normal needs for physicians by the population of the continental United States. The great unsolved problem in medical education is that of keeping physicians abreast of scientific and technical advances subsequent to completion of their formal education. This deficiency is especially apparent among physicians who, because of location or lack of hospital connections, become isolated from their fellow practitioners. The mere provision of additional hospitals and clinic facilities alone will not solve this problem. A continued educational influence must be infused into the system. This influence should emanate from teaching nuclei which may be located in medical schools or medical centers to which satellite institutions of the surrounding areas are related. In addition, individual physicians must be encouraged to pursue specialized courses so that the particular needs of each locality may be properly satisfied. Within reasonable limits these and other measures necessary for maintaining quality of service should be regarded as appropriate for public support, but should not be charges against the medical care fund proper.

From the very outset there should be a frank recognition of the fact that

any medical care program is certain to deteriorate unless research goes hand in hand with the provision of service. Hence the support of research, like the support of personnel training, must be accepted as a legitimate and necessary item in the over-all cost of medical care. When selecting topics for basic research, it would seem appropriate that primary consideration be given to conditions such as mental disorders and chronic disabling disease of advancing years, which tend to overburden any comprehensive program of medical care. In the normal course of operating a medical care program endless opportunities will arise for improving service and reducing costs; such matters constitute appropriate subjects for the administrative type of research. There will also be need for the pilot-plant type of installation in which new procedures are tested and perfected prior to full-scale application.

In the foregoing discussion an attempt has been made to set out the circumstances which prompted the preparation of the report of the Subcommittee on Medical Care, the subject matter considered, and the factors which determined the conclusions. Each of the problems under discussion has many facets. Papers that follow in this symposium represent attempts to describe in more detail the underlying factors which have precipitated out medical care as a national issue, and the corrective measures that seem applicable, together with appropriate methods of administration.

Content and Administration of a Medical Care Program

Unmet Health Needs *

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IT is the history and the proud tradition of modern public health that it is foresighted. It has attained its present high level not through accident —though unforeseen developments have played a part—but primarily through careful study and planned action.

Public health progress has depended on periodic review of accomplishments, planning to meet unmet needs, experimentation, concurrent evaluation of activities, and repetition of this time-tested and productive sequence.

This basic method of the public health campaign is being constantly applied, operating for the most part in quiet ways—without drama or crisis. Occasionally it is applied in more unusual fashion—as when some event or circumstance provides special reason to take stock or to meet new needs. An epidemic or some other catastrophe has sometimes precipitated action, so that something good and useful for the welfare of society was fertilized by the ashes of tragedy.

Today, American public health is confronted with unusual circumstance. The times demand unusual action—to make a special appraisal of unmet needs, to recognize the barriers to health progress, and to plan courageously and adequately how to level those barriers and how to meet those needs.

It is conceivable that, in a world in flames and disorder, we shall make a transition from war to peace without serious disruptions and by smooth and gradual stages; and it is possible that public health practice in the United States will pursue the even tenor of its way. But it is also possible that our society will be wracked by social and economic strains, and that the machinery and the practices of our health services will be deeply affected.

For a decade and more we have been hearing with increasing insistence that people have learned of the new and enlarged possibilities for health and that they demand a share in these opportunities. This demand has now swelled to large proportions. We of the public health profession should not fear and evade it; we should welcome it. And we should also note that the new public demand for health service is not so much in the traditional patterns of public health, with its primary concern for premature mortality, as in the newer patterns of social security, with its emphasis on assurance of needed medical and hospital care, and protection against the suffering and the economic burdens of sickness, disability, and dependency.

We have given some thought and attention to this subject in our Association. It is timely that we give it more.

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PERSISTENT MORTALITY AND MORBIDITY

For some generations, public health administration leaned primarily on death rates to measure need, and on changes in these rates to measure accomplishment. The technical validity of that practice rested upon two assumptions—both more generally implicit than explicit—first, that public health was chiefly concerned with preventing the occurrence of preventable fatal diseases; and, second, because fatality rates were relatively constant, that changes in death rates reflected trends in the incidence of both illness and death. In the years when the greatest concern was with preventable infectious diseases, these assumptions were substantially valid; mortality rates were useful as primary indexes of health, and reductions in those rates were indexes of progress in the public health. But time marched on.

It is a striking fact—yet still widely unrecognized—that most sickness and most deaths in our times result from causes that we cannot control in the sense of preventing their occurrence. One has only to scan a list of the principal causes of either morbidity or mortality to see this plain truth.

We take great pride in the reductions that have been effected in the death rates—from about 17 or 18 deaths per 1,000 at the beginning of the century to about 11 per 1,000 in 1940. But we often forget that about 70 per cent of that reduction had already occurred by 1920, and practically 100 per cent by 1930. Such further reductions as have occurred among some causes and in some age groups are offset by increases elsewhere. Or, to take the matter in closer perspective, the prototypes of disease controllable by public health methods are typhoid and paratyphoid fevers, diphtheria, diarrhea and enteritis, measles, scarlet fever, whooping cough, and tuberculosis. Their aggregate death rates declined by about 83 per cent from 1900 to 1940; but about 56 per cent of that decline had already occurred by 1920, and about 84 per cent by 1930. It is true that much yet remains to be done in controlling these infections and we should press home their more complete control or eradication. We need to remind ourselves, however, that this group of preventable deaths was directly responsible in the last census year for only 1 death in 22. All other causes of death declined by less than 25 per cent in the first 40 years of this century; some among them show increasing death rates. We should be getting on with the job of tackling them as prevalent causes of disease and death.

The most common plagues that afflict us now are not preventable as causes of sickness or premature death by the traditional public health methods of community-wide control, or they are not preventable at all with present knowledge, methods, or skills. And, because of their concentration in the higher ages, the prospective aging of the population will increase the relative prevalence of these non-preventable illnesses.

MEDICAL CARE AS A PREVENTIVE SERVICE

Yet—if I may speak critically—we still act by patterns of public health practice as though preventable infectious diseases were our greatest problems, while we concern ourselves relatively little with heart disease, pneumonia, rheumatism, and other diseases which are vastly more prevalent and cause far more suffering and damage to human resources. These diseases which we cannot wholly prevent need early detection and accurate diagnosis; the patients need prompt, comprehensive, and continued care—home, office, clinic, hospital, laboratory, and other services—from the physician, dentist, nurse, laboratory expert or

pharmacist, and the host of others who stand behind them and support them. With these services public health has been relatively little concerned, because it has regarded medical care for the individual as being generally outside its field. In the past ten or fifteen years, the generously given advice "go see your family doctor" has been a feeble and futile substitute for a useful and effective program to assure the actual availability of services to those who need them.

This does not mean that public health practice has followed a consistent pattern of avoiding medical services, witness the long history of medical intervention by public health agencies in the case of tuberculosis and the more recent activity in respect to mental diseases, cancer, the venereal diseases, and the pneumonias. A few other examples, of uncertain generality, might be cited. Yet it still would be correct to say that public health practice has done and is doing little—very little, indeed, by comparison with the size of the need and the opportunity for useful service—about the commonest and most important causes of morbidity and disability; it still largely neglects to assure the availability of those services that would alleviate sickness and suffering where it admittedly cannot prevent the onset of disease.

In the past two or three decades, public health practice has shown a strong tendency to shun individual services. In the same periods, the public has become increasingly insistent in its demand for more and better individual services. These diverging trends explain in considerable part the continuing inadequate financial support of local public health activities. Lacking the public support that comes from the direct provision of personal service, public health officers have generally had an uphill fight in defending increased budgets for services that are for the most part vague and impersonal to the taxpayer.

Everywhere about us are people who have learned the new wonders that science holds for health. Their demand for services that will heal the sick is not to be met by new promises to prevent other illnesses that have not yet occurred. This demand has now reached such proportions that it cannot be much longer denied or ignored, especially because millions of people have learned there are ways of meeting the problems of costs that restrict the availability of needed services. There is now substantial agreement, nation-wide, that action will soon be taken. The public health professions cannot stand aloof.

The paramount issue before public health leadership in the United States concerns the place of medical services within the framework of public health practice. We are all agreed that the first function of public health is to prevent. But must prevention deal only with the initial occurrence or onset of a disease? Or shall it also mean that disease which cannot be prevented shall be recognized early in its course and treated promptly and effectively in order that human suffering shall be avoided; that the period of illness shall be shortened; that the course of the illness shall be moderated, shall not go on to more serious sickness, and shall not lead to further scarring and injury; that illness shall not lead to disability; that disability shall not be more prevalent than it has to be?

The practical import of these contentions is that medical care must be regarded as an integral part of a broad program of public health, one that embraces not only traditional community-wide services and special provisions already developed for particular diseases or special population groups, but also general diagnostic and treatment services for all members of the community. This involves the availability of med-

ical care of high quality, in early as well as late stages of disease, and ready access to the needed services throughout the entire period in which they are required. It also involves coördination of the diagnostic and treatment services with the more strictly preventive services—statistical, sanitary, laboratory, policing, educational, and administrative—and with the services for rehabilitation of the handicapped and the disabled. Also, having regard for the interrelations between poverty, disease, and dependency, the broad health program involves coördination with provisions for maintenance of income and for education, good nutrition, healthful housing, and other social purposes that are widely accepted as being essential or important to health.

The first unmet health need today is the design of a new public health program, adequate in both scope and content for our times.

SOME SPECIFIC NEEDS

If we are to enter upon a program of positive health and medical care for the people of this country, we must come to closer grips with the needs that are to be met. While taking into account the problems resulting from the war, we should hold them in perspective by reference to pre-war circumstances and post-war outlooks.

How much illness is there ordinarily in our population? No one knows exactly, especially because the amount of illness found in any group depends upon the intensity of the search made to discover it. Improved and enlarged reporting of morbidity is one of the important unmet needs. The deficiency has been partly overcome through special studies. By carefully combining the evidence from extensive and intensive surveys, it appears that on an average day at least 7 million persons are unable to carry on their usual pursuits because of disabling illness. Under conditions of careful reporting, the incidence of recognized illness is about 1 case per person a year, including in this figure both disabling and non-disabling illness, but omitting most minor illnesses and undiagnosed conditions. About 1 person in 5 suffers from a chronic disease or a major physical defect which needs medical attention. Many of these conditions are caused by the so-called "degenerative diseases" which so commonly prevail in middle age and in the more advanced years, and which usually need protracted and expensive care.

Whenever representative groups in our population are carefully examined, with the physician's skill supplemented by laboratory tests, vast amounts of neglected ill health and physical defect are uncovered. The large proportion of presumably healthy young men who were rejected for general military service because of defects and handicapping conditions is now well known; it came as a surprise only to those impressed by progress in the death rates and in the average expectation of living measured at birth or in the early years of life, and to those uninformed of the large number of people who do not receive the medical services they need.

There are many reasons why people who need medical care do not always receive it. The underlying causes are primarily economic. Medical care costs money. Illness and its costs are unpredictable for the individual, though they can be forecast with reasonable accuracy for the large group. The annual burden of sickness costs falls mainly upon a small proportion of the population, and usually comes unexpectedly upon the individual or family. In planning for better medical care, the most important characteristic of medical costs which must be surmounted is their uneven distribution among individuals and families.

Low-income families have more than

average amounts of illness, larger and more frequent need for care, and they spend a proportionately larger share of their incomes on sickness, yet they receive far less medical service than the well-to-do and the wealthy. For many, the costs constitute a barrier which prevents the receipt of needed care or any care at all. Below the level of the well-to-do, the percentage of illness which is without medical attendance rises steadily as income declines. Inadequacy of care and lack of care are especially widespread among the millions who live in rural areas. Those who are most familiar with rural conditions assure us that "modern medicine as we boast of it today is an urban phenomenon." And Negroes are generally worse off than white persons. It is easy to recognize how the vicious circle runs—illness causes poverty; poverty is associated with unattended and neglected illness. Which is cause and how much is effect cannot always be disentangled. We can be sure, however, that the circle needs to be broken from outside its perimeter.

POVERTY AND MEDICAL NEEDS

These generalized and summarized statements about sickness and medical neglect may be unimpressive to those not accustomed to think in statistical terms. If time permitted, the facts could be made more specific by referring not to all sickness or all kinds of medical care, but to tuberculosis, cancer, pregnancy, heart disease, pneumonia and other specific causes of illness, or to medical, dental, nursing, hospital or laboratory services.

It is so frequently repeated that the poor and the rich get good medical care, or the best medical care, that many have come to believe it. No doubt, one can see here in New York City, where we are meeting, numerous examples to illustrate receipt of the highest grade of care by the indigent poor—given by some of the ablest physicians in the city, in well-equipped hospitals and clinics operating at high levels of skill and efficiency. But who among us does not know that very few large cities and fewer smaller cities and almost no rural areas have made the provisions for the medical care of the poor that are to be found here? Those particular individuals among the poor so fortunate as to be served by leading clinicians in "free" clinics and "free" hospital beds may be receiving service of high quality. But this does not alter the fact—attested by scores of health or welfare studies—that in most urban areas and in nearly all rural areas poverty and lack of medical care go along together. It was true three-quarters of a century ago when this Association was founded; it is still true today, despite the widespread circulation of mischievous catchwords and clichés to the contrary.

INADEQUACY OF PERSONNEL AND RESOURCES

The correlation between family income and the adequacy of care received has a parellel in the correlation between community income and the availability of health and medical services.

At the beginning of the war, the United States as a whole was relatively well supplied with physicians. But the country-wide average of about 1 physician to each 750 people concealed wide variations from region to region, from state to state, and among urban and rural areas within states. The ratio was lower than average in low-income and in rural or sparsely populated areas. Specialists even more than general practitioners were concentrated in large cities and wealthy communities.

The lack of physicians in rural areas has been aggravated by the war; recruitment for the armed services was disproportionately heavy from states

and areas least able to spare them. It is probable that, with present methods of providing and paying for medical care, the return to peace and the demobilization of the armed forces will not bring improvement over the pre-war situation.

Maldistribution was even more marked among the dentists and probably among the nurses and hospitals. Where there was wealth, there were more or less ample personnel and facilities; where there was poverty, there was less or—in the extremest cases, even nothing.

Paying for medical care through individual purchase at the time the service is needed means inadequate care, insecurity, and burdensome costs for the patient. It also limits the financial security of the practitioners and institutions that furnish the service. The result appears in large variations in the incomes of practitioners, in low incomes for those who serve people of small or modest means, in inadequate financial support of hospitals, and—as noted before—in the maldistribution of professional personnel, hospitals, and other agencies.

The adequacy of public health services and facilities is also related to the prosperity or poverty of an area. Full-time, organized and adequate public health agencies are scarce enough the country over; they are especially deficient where wealth and income are less than average.

The unmet health needs of today include, in addition to those which I have mentioned, a few others of large importance. The need to strengthen the facilities for the education and training of personnel, to bring added support to research that will widen the boundaries of knowledge, to provide financial and technical aid for the construction of hospitals, health centers, and other facilities, I note only in passing; they will be examined at length by others participating in this program. The need to improve quality of care, and to assure economy and efficiency in the provision of service, open the large and controversial questions which surround proposals for the organized group practice of medicine. This is not the occasion to examine the issues at length. But this much may be said: No solution to the financial problems of medical care has to wait until the group practice questions have been finally answered. And no solution would be a good one, if it either "froze" the *status quo* of individual practice or failed to aid and encourage widespread and constructive experimentation in the methods of providing care.

SCOPE OF A COMPREHENSIVE PROGRAM

This brief review of unmet health needs may be summarized in even more general terms. The first need is for more adequate services than we have yet developed to prevent the occurrence of illness—including community-wide preventive services, such as modern public health practice already furnishes more or less comprehensively in the more progressive and wealthier areas or communities; and individual preventive services, perhaps best exemplified in maternity-advice centers and well baby clinics. The second need is for measures to assure ready and equal access to medical services for illness in which the occurrence is not, or cannot be, prevented but in which the duration can be abbreviated, the suffering reduced, the severity moderated, and the aftereffects either prevented or minimized. Such measures must provide for development of the social institutions essential to stable financing and orderly administration of the services to be included within a comprehensive program of medical care. Each of these two broad classes of need can be met only through a variety of provisions, including means of dealing with deficiencies and mal-

distribution in personnel and facilities.

Let me emphasize the futility of discussions, like those which have been common in the recent past, as to which of the two programs is the more important, or which should precede and which should follow. Both are necessary; each is urgent; one complements the other.

WE CAN AFFORD THE COSTS OF HEALTH

It is fair to ask whether, as a nation, we can afford to meet the unmet needs that have been outlined. This, in effect, asks whether we can afford the price of that level of health and that freedom from suffering which modern science and skill have brought within our reach.

Before the war, total expenditures for medical services were about 4 billion dollars a year (exclusive of the cost of medical care for the armed forces). About three-fourths of this total was spent by patients and their families—the direct consumers of medical care. Four to 5 per cent was contributed by industry and philanthropy. The remaining 20 per cent was spent by federal, state, and local governments.

The 3 billion dollars spent by the American people in direct family expenditures for medical care represented about 4 per cent of consumer income. Families in the lowest income groups spent a larger average percentage. Expenditures of no more than these amounts, but under arrangements which assured the widespread availability of medical services, could vastly improve the adequacy of care and greatly advance the public health. If only these amounts were spent, but in such a way as to enable each family to pay an average amount—year in and year out—the burden on consumers would be far less than it has been. These amounts could adequately compensate those who provide the services under arrangements which would assure them of regular incomes and, at the same time, avoid the unconscionable situation of having doctors without patients and sick people without doctors.

The pre-war level of expenditures for medical services, public and private, may not, however, have been fully adequate to pay the cost of services equal to our modern needs and standards. In the years ahead, especially if our economy operates with stability and at a high level of employment, our total expenditures for health and medical services might advantageously be expanded from the 4 billion dollars of pre-war years to as much as 5, 6, or even nearly 7 billion dollars a year under arrangements that will make adequate services and care available to the entire population. Those larger amounts for the future might be only 6 per cent of national income. This should be compared with the 5 per cent of national income (a total of about 3 billion dollars) expended about 10 years ago in times of deep economic depression when the degrees of economic freedom and the margins of flexibility in our expenditure patterns were very low indeed. These and all such figures should be measured against the 10 billion dollars commonly accepted as a conservative estimate of the direct and indirect annual costs of sickness and disability.

Like the growing and expanding social services generally, a strong health program is a necessity in every modern economy, because national wealth and well-being depend directly upon labor and productive work. There was a time when the social services were chiefly the gift of a few to the many, the charity of the rich to the poor. But today—and it will be more surely true in the future—the social services are for all, to be provided by the wealth and productivity of all. Moreover, the social services generally and the health services specifically are

and areas least able to spare them. It is probable that, with present methods of providing and paying for medical care, the return to peace and the demobilization of the armed forces will not bring improvement over the prewar situation.

Maldistribution was even more marked among the dentists and probably among the nurses and hospitals. Where there was wealth, there were more or less ample personnel and facilities; where there was poverty, there was less or—in the extremest cases, even nothing.

Paying for medical care through individual purchase at the time the service is needed means inadequate care, insecurity, and burdensome costs for the patient. It also limits the financial security of the practitioners and institutions that furnish the service. The result appears in large variations in the incomes of practitioners, in low incomes for those who serve people of small or modest means, in inadequate financial support of hospitals, and—as noted before—in the maldistribution of professional personnel, hospitals, and other agencies.

The adequacy of public health services and facilities is also related to the prosperity or poverty of an area. Full-time, organized and adequate public health agencies are scarce enough the country over; they are especially deficient where wealth and income are less than average.

The unmet health needs of today include, in addition to those which I have mentioned, a few others of large importance. The need to strengthen the facilities for the education and training of personnel, to bring added support to research that will widen the boundaries of knowledge, to provide financial and technical aid for the construction of hospitals, health centers, and other facilities, I note only in passing; they will be examined at length by others participating in this program. The need to improve quality of care, and to assure economy and efficiency in the provision of service, open the large and controversial questions which surround proposals for the organized group practice of medicine. This is not the occasion to examine the issues at length. But this much may be said: No solution to the financial problems of medical care has to wait until the group practice questions have been finally answered. And no solution would be a good one, if it either "froze" the *status quo* of individual practice or failed to aid and encourage widespread and constructive experimentation in the methods of providing care.

SCOPE OF A COMPREHENSIVE PROGRAM

This brief review of unmet health needs may be summarized in even more general terms. The first need is for more adequate services than we have yet developed to prevent the occurrence of illness—including community-wide preventive services, such as modern public health practice already furnishes more or less comprehensively in the more progressive and wealthier areas or communities; and individual preventive services, perhaps best exemplified in maternity-advice centers and well baby clinics. The second need is for measures to assure ready and equal access to medical services for illness in which the occurrence is not, or cannot be, prevented but in which the duration can be abbreviated, the suffering reduced, the severity moderated, and the aftereffects either prevented or minimized. Such measures must provide for development of the social institutions essential to stable financing and orderly administration of the services to be included within a comprehensive program of medical care. Each of these two broad classes of need can be met only through a variety of provisions, including means of dealing with deficiencies and mal-

distribution in personnel and facilities.

Let me emphasize the futility of discussions, like those which have been common in the recent past, as to which of the two programs is the more important, or which should precede and which should follow. Both are necessary; each is urgent; one complements the other.

WE CAN AFFORD THE COSTS OF HEALTH

It is fair to ask whether, as a nation, we can afford to meet the unmet needs that have been outlined. This, in effect, asks whether we can afford the price of that level of health and that freedom from suffering which modern science and skill have brought within our reach.

Before the war, total expenditures for medical services were about 4 billion dollars a year (exclusive of the cost of medical care for the armed forces). About three-fourths of this total was spent by patients and their families—the direct consumers of medical care. Four to 5 per cent was contributed by industry and philanthropy. The remaining 20 per cent was spent by federal, state, and local governments.

The 3 billion dollars spent by the American people in direct family expenditures for medical care represented about 4 per cent of consumer income. Families in the lowest income groups spent a larger average percentage. Expenditures of no more than these amounts, but under arrangements which assured the widespread availability of medical services, could vastly improve the adequacy of care and greatly advance the public health. If only these amounts were spent, but in such a way as to enable each family to pay an average amount—year in and year out—the burden on consumers would be far less than it has been. These amounts could adequately compensate those who provide the services under arrangements which would assure them of regular incomes and, at the same time, avoid the unconscionable situation of having doctors without patients and sick people without doctors.

The pre-war level of expenditures for medical services, public and private, may not, however, have been fully adequate to pay the cost of services equal to our modern needs and standards. In the years ahead, especially if our economy operates with stability and at a high level of employment, our total expenditures for health and medical services might advantageously be expanded from the 4 billion dollars of pre-war years to as much as 5, 6, or even nearly 7 billion dollars a year under arrangements that will make adequate services and care available to the entire population. Those larger amounts for the future might be only 6 per cent of national income. This should be compared with the 5 per cent of national income (a total of about 3 billion dollars) expended about 10 years ago in times of deep economic depression when the degrees of economic freedom and the margins of flexibility in our expenditure patterns were very low indeed. These and all such figures should be measured against the 10 billion dollars commonly accepted as a conservative estimate of the direct and indirect annual costs of sickness and disability.

Like the growing and expanding social services generally, a strong health program is a necessity in every modern economy, because national wealth and well-being depend directly upon labor and productive work. There was a time when the social services were chiefly the gift of a few to the many, the charity of the rich to the poor. But today—and it will be more surely true in the future—the social services are for all, to be provided by the wealth and productivity of all. Moreover, the social services generally and the health services specifically are

not any longer to be financed by the "tax paying geese" that lay golden eggs; they are to be financed from the wealth of the entire society they serve. Modern society has been painfully and tragically slow in learning that the wealth of nations depends more upon the amount and the quality of the work we do than upon the amount of money we can avoid spending. As surely as health is prerequisite to work, so surely is it sound to earmark and spend for health up to the maximum that brings substantial returns.

Measured as a percentage of either family income or national income, we can afford health. In the words of a popular slogan, "it costs no more"; indeed, it costs less. We can less afford the higher price of sickness which we know how to prevent and of suffering, disability, and dependency we need not have. We are spending lavishly now for sickness and its consequences. We can resolve to spend wisely and productively for health. Thus, within the limits fixed by available knowledge and skill, by our human and material resources, by our courage, energy, and vision, comprehensive and adequate health and medical services for all are within our means.

CONCLUSION

The economic barriers to adequate health and medical services are inherent in our present hit-and-miss methods of meeting the costs; they are not inherent in the nature of the services that are worth having, or in the nature or the capacity of our economy. If the services continue to be inadequate, the fault lies not in the stars but in ourselves.

The unmet needs can be met. How they will be met—and how rapidly—will be influenced by the rôle the public health profession will choose to play in planning and guiding a program of medical care for the nation.

Content and Administration of a Medical Care Progam

A National Health Service: Scope, Financing and Administration *

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NO ONE, and least of all the public health worker, facing the facts of unmet health needs can escape the conclusion that a national health program is both desirable and inevitable. It is inevitable because the facts grow out of the daily experiences—the needs and the insecurity—of millions of people. These experiences are the exciting impulses behind the increasingly forceful demand for a more adequate distribution of the benefits of the health sciences. The chief issue, therefore, is not: Shall there be a national health program? Rather is it the much more technical question: How may the benefits of a national health program be distributed most successfully? This is the problem that should engage the attention and excite the imagination of the public health worker.

In its recommendations the Subcommittee on Medical Care has emphasized the elements of time and of orderly progress in the unfolding of a national health scheme. Desirable as it is to distribute the full benefits of science to the whole population immediately, the inadequacy of facilities and the unsatisfactory distribution of personnel make this an impossibility. Thus, the subcommittee visualizes an expanding program covering a period of ten years, a period during which intensive efforts will be concentrated upon the problems of physical facilities and personnel.

The need at the outset is for a plan of comprehensive scope. Unless there is understanding and agreement concerning the whole scheme, there is grave danger that the parts that must ultimately comprise the whole will develop as unrelated and badly fitted pieces. The best hospital and health center construction program in the world, taken by itself, will result only in hundreds or thousands of magnificent monuments to the builders' art. Add to the construction program a plan to activate the physical facilities with adequate personnel, and each hospital or health center becomes a place where medical care *might* be available if the economic barriers between the services and the people were reduced or leveled. Introduce the third factor, that of prepayment, and the plan as a whole becomes a dynamic force in the distribution of adequate care. These, with one other, are the basic parts of a national health scheme; to think that any one of them—construction, or distribution of personnel, or prepayment—can attain the objective of satisfactory national health is to think in fictions.

In scope, then, the national health plan must be conceived as, ultimately, embracing all services — diagnostic,

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curative, preventive. And, since the distribution of such services now varies so widely, the plan at its initiation must be flexible enough to permit the full utilization of the services that exist in different communities or areas of the country.

Possible methods of financing a national health service have been indicated by the chairman. Whatever the method or the combination of methods, it should be recognized that a large part of the total funds for medical care does not constitute "new money" in the sense that it will be expended for entirely new purposes. Much of the total sum would be expended if there were no national health plan, just as it is being expended today without providing for the benefits that are envisaged in such a plan.

An endless amount of time might be spent, and doubtless much time will be spent, in debate upon the relationships between the federal and state governments in a scheme of national health. Such debate is interesting and provocative, but this is not the subject that should be the main preoccupation of the great majority of public health workers. There is another subject, much more difficult and much more productive of values, that demands the chief concentration of public health.

Between the stated objectives of a national health plan and their actual achievement there exists a broad, deep gap. To the public health worker this is no new phenomenon; it has many parallels in his own fields of effort—maternal and child health, malaria control, food sanitation. If there is to be any satisfactory achievement the gap must be filled with the solid materials of successful administration. Successful administration, then, is the fourth basic elements in a satisfactory national health plan. Unfortunately, too little attention has been given to it.

Public health may make a valuable contribution to all aspects of a national health plan; to its administration the contribution may be unique. Rare, indeed, is the health department that does not have within its own area some form or forms of medical administration. Whether it is the administration of the many types of federal, state, or local medical relief, or the present Emergency Maternal and Infancy Care program, or a Farm Security program, or a voluntary hospital or medical plan, much may be learned through critical examinations of the administrative processes. With many of these processes health departments are already involved and their accumulated experience has incalculable value—if it is accumulated.

Whatever may be the broad policy-making authority of the federal or the state governments, detailed administration must be centered where the people live and must be related to local conditions and needs. If administration is to become the function of any existing local agency, the health department is the logical choice. But, as always happens, the authority to administer is accompanied by specific and weighty responsibilities.

The first responsibility of the health department is to become acquainted with the existing administrative experience and technics. To say that "services must be rendered under conditions acceptable to the public and the professions concerned," has a soothing cadence. But for the administrator such relaxing phrases are not enough; he must prepare a written policy that sets forth precisely the acceptable conditions.

There is little doubt that one of the key problems of administration will involve the method or methods of payment for service, as well as the amounts that are paid. It is assumed also that, since it is the least departure from the traditional form of payment,

the fee-for-service will be the choice of the medical profession.

The local administrator owes it to himself, his department, and his community to become acquainted with the history and the administration of this form of payment. Furthermore, it is unfair to adopt or accept it with the assumption that it is foredoomed to failure. Under those circumstances failure is a certainty. The only fair approach is to apply to the method all of the administrative ingenuity that is possible and to devise new and more satisfactory technics of control. And on this subject the local health administrator will find, usually, that his own community has in it abundant research material.

The local administration of financing is not a necessary accompaniment of the local administration of services. Just as there are wide variations between the economic resources of states, so are there variations between districts or counties within states. Thus, while the local administration of services might be on a basis of the present or of reshaped health jurisdictions, the actual payment for services might be centralized for a number of such jurisdictions within one or more trade areas.

The point need not be labored that the administration of a national health plan calls for much more attention to those minute details that make up the daily administrative processes. It can be assumed that an over-emphasis upon paperwork will arouse antagonism. To the professions and the hospitals that anticipate and are prepared to resent this form of "red tape" it will come as a welcome evidence of administrative capability if paperwork is simplified. But simplification is never the result of just wishing for it. Too often are the purposes of medical administrative records confused with those of medical research records. And, too often, the result is a cumbersome and complex combination that produces administrative irritations and, at the same time, inadequate medical research.

With the fee-for-service as the method of payment, administrative controls must be devised. Unless they are better than those of the past they will be resented both by the public and the professions as examples of "bureaucratic interference." It would be well for public health to adopt and then to seek the methods of applying the principle that a successful control procedure is one which is neither irritating nor burdensome to those who do not need to be controlled—and that means the great majority of the professions, the hospitals, and the public.

To think of a national health program starting tomorrow produces mixed reactions. The potential results excite enthusiasm, but the lack of sufficient administrative personnel and a body of evaluated administrative experience act as curbs. Not for a moment should anyone assume that these lacks will postpone the adoption and the initiation of a national plan. Public action is never postponed until all administrative details are completed, and it follows that the safest course for the administrator is to anticipate and prepare to meet the public demand. The only other course, that of doing nothing and waiting, leads to emergency administration. And the very thought of administering a national health plan as though it were an emergency is appalling. For public health this is a "get ready" period; its values will be high or low according to how intensively this period is used.

Content and Administration of a Medical Care Program

Problems of Administration of a Medical Care Program *

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THIS paper deals with certain of the problems or issues in the administration of a health and medical care program and with the function of the health officer in relation to the program.

There is much discussion as to whether medical care administration should be on a wholly federal or on a federal-state-local basis. Whatever the force of arguments pro and con on this issue, it is plain that there must be decentralized control of health services, that the people of each local area must have a great deal of choice as to what their health services shall be and how they shall be administered. There must be latitude for different administrative arrangements and devices. Conditions and needs vary the country over and the state and its local communities should be free to develop arrangements best suited to their particular needs.

Our public health services have developed primarily on a state and local level of administration, and unless medical care is developed on the same basis, the possibilities of thorough-going integration will be greatly handicapped. Indeed, federal administration of curative services and state administration of preventive services would seem certain to perpetuate that separation of prevention and treatment which we wish to avoid, unless the state agencies assume major administrative responsibilities within the framework of a national program or system.

If it is assumed that the primary administrative responsibility for operation of the health care program will lie with the state, to what extent will the state government operate the program directly and to what degree will responsibility be delegated to local units of government?

It is obvious that this will vary in different states. The natural area for administration of a medical care program is the large metropolitan center with a variable amount of surrounding territory: the medical service area. Many communities are not self sufficient with respect to hospital and medical services. Rural people go into the nearby towns and small cities for physicians' services and, together with inhabitants of small towns and cities, go into the large metropolitan centers for certain types of specialist care and for care of major illnesses. In some states, especially those which have only one or two such medical service areas, it is almost inevitable that administration throughout the entire state will be by a state agency. Other states con-

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tain more medical service areas, and here question will arise as to whether administration throughout should be by a single state agency or be delegated to local jurisdictions covering the several medical service areas. Special problems will be created by the numerous medical service areas which cross state lines.

It is quite likely that in some states it would be necessary, even with state administration, to divide the state into administrative districts, each such district comprising a medical service area. It might be necessary to develop, in some cases, a new, local governmental authority having responsibility for health services, because many existing county and city governments are unsatisfactory for this purpose. What is needed is a local authority which will have jurisdictional responsibility over an area roughly coterminous with a medical service area, i.e., combining city and countryside. Such a new local authority will have to be, in effect, a combination of several counties or of a city and several counties, in many states and parts of states.

The districts here envisaged for medical care administration would be appropriate for administration of public health services and of course should be identical. If such an integrated public health and medical care program is to be implemented, the district health authority should have a firm legal basis established by state legislation. Its board or council might well be made up of representatives of the councils or commissions of constituent counties or cities. Participation in this health district would have to be coercive upon the constituent counties—the district health authority could not function if constituent counties or cities could withdraw at will.

The next problem to be faced is the make-up of the state or district administrative unit. It is believed that responsibility for policy should be vested in a board composed of perhaps 10 to 20 members, part of whom should be representative of the medical profession, the hospitals, the dental profession, and other groups providing health services, but a majority of whom should be representative of the public. Such a board for state administration would be appointed by the governor, and for districts by the governing council (or other authoritative body) of the health district authority. Generally speaking, existing state boards of health would not be suitable for the responsibility without revision of their composition, since they usually have too many physicians in proportion to the representation of the general public. Responsibility for actual administration should be vested in a single person who would be responsible to the board. If the medical care program is largely or wholly financed by insurance contributions, there should be appropriate representation of the contributors as well as of those who furnish the services.

How will present health departments be integrated with the medical service administration? I am firmly of the opinion that ultimately all health services, both preventive and curative, at the state or at the district level, should be administered by one health agency. It is quite likely, however, that at the inception of the program some states will see fit to place administration of the medical service program in some agency other than the health department. Other states might vest administration in a reorganized department of health, in which what is now the health department would constitute a division responsible for preventive services.

Other factors to be given weight in considering the relationship of health departments to the new program are the potential size of the new programs and the inexperience of many present health department personnel in medical care administration. In terms of cost and number of personnel required for ad-

ministration, the new programs will dwarf the present public health programs. For these reasons, some states and localities may decide to set up a new agency to administer the new program. The degree of initiative shown by health departments in bringing about a medical care program and the extent of their eagerness to assume the responsibilities of its administration will undoubtedly be important factors in determining their relationship to the new program.

I think it may be assumed that any governmental medical care program, at least at the outset, will be merely a program for the payment of or distribution of medical services, and will be superimposed upon present methods of practice and provision of care with as little change in these methods as possible. In other words, general hospital care will continue to be provided mainly by voluntary hospitals as at present, and physicians' services will be provided by private practitioners paid on a fee or capitation basis—with some probably paid on whole- or part-time salaries or on salary payments combined with other kinds of payments. The main difference will be that hospitals and physicians will be paid out of an insurance or tax fund, contributed periodically on a group basis by sick and well alike, instead of being paid as at present, by the sick at the time service is rendered.

A technique of paying hospitals for their services from a central fund has been recently worked out by the Blue Cross Plans and the E.M.I.C. program; it has been done for a long time by public welfare agencies, medical care prepayment plans, etc. These methods can be used under a comprehensive health and medical care program. Techniques of paying for physicians' services from a central fund have similarly a long body of experience behind them and various alternative methods are available for use. The same may be said of paying for dental and nursing services.

When arrangements have been developed for paying hospitals and physicians for their services out of a central fund, there will be opportunity for improving the quality of care. Indeed, these problems will become so pressing that they cannot be avoided. Once hospitals are being paid out of public funds for their services to the population, it will be important to set standards as to quality of care which institutions must meet in order to qualify as hospitals. It will also be necessary to develop standards of efficient administration to assure that costs are kept to reasonable levels.

The question of group practice is important. Group practice provides a means whereby the quality of service can be elevated and its cost lowered. I believe that group practice will develop within the framework of a medical care program and that the program can do much of itself to stimulate such development, but I do not believe that it will be possible or desirable to force group practice upon the profession under a medical care program. What can be done is to permit free competition between group and individual practice. That is, we should pay all physicians as nearly as practicable on the same basis for their services.

If some desire to form groups, and by so doing can provide better service and thereby attract more patients, or if they can reduce the expenses of practice and thereby increase their incomes, they and the public will reap advantages which will in time lead other doctors to form groups. In short, to the extent that group practice is beneficial to the profession, the profession will adopt it. Here and there we have already seen group practice stimulated or even organized by public

groups, either in group clinics or around hospitals.

Development of group practice can be aided and encouraged, at least in rural areas, by the construction of health centers. Such a center can provide offices for doctors as well as central laboratory and x-ray facilities. Bringing doctors into proximity with each other will facilitate development of cooperative effort. The health center also provides an opportunity for coördination of medical care with community-wide preventive services.

I am quite familiar with some of the problems of western North Carolina, and I am of the opinion that we should do something to meet these problems. I think we could tie up medical care and public health by expanding the services of our present health centers; first, by increasing the number so as to make a health center accessible to all the people and second, by providing adequate medical care services along with our preventive health program. All medical, hospital, and other essential diagnostic aids and services should be made available at or in coöperation with the health center facility. At present the communities are not in a position to provide modern medical aids for themselves. Rural practitioners are rarely financially able to purchase them, and sometimes do not fully appreciate the need for them.

Leaders in the medical profession for some time have been recognizing the inadequate distribution of physicians and the lack of available medical care throughout North Carolina, and especially the western rural sections. To meet these immediate needs it would be well to establish in the near future accessible health center facilities in some sections of our state, where present medical and hospital services are so inadequate. Each of the centers should be provided with trained medical, nursing, and other necessary professional personnel to serve adequately the medical care needs of the population in the area in which the center is located. The facility should provide all the essential health services, both preventive and curative. A rural or semi-rural health center facility should provide a minimum of one physician, one public health nurse, one clinic nurse, a combination historian and clerk, and a laboratory technician. In the larger population centers the health facility should accommodate a number of physicians, public health nurses, clinic nurses, etc. Each facility should be constructed, staffed, and equipped for the specific locality and type of services to be provided. In some isolated sections it might be advisable to provide a small number of hospital beds to take care of the emergency medical problems of the area. The health facility medical personnel would administer office hour medical services of all essential types, both preventive and curative, comparable to the services commonly rendered by general practitioners in their offices to ambulatory cases, and home visits to persons living throughout the area served by the particular health facility.

COMMENT

An endeavor has been made to touch upon some of the more important problems in the administration of a medical care program. It is evident that on many points we are not yet ready to give final answers. We shall have to learn by doing, and as we set ourselves to the task, the problems, I am confident, will become less complex. One can be sure that the answers found to these administrative problems the country over will not be uniform. In one state or locality we will do it one way, in another state, another way. Methods and arrangements must remain fluid, one giving way to another as experience prompts. The rôle of the

health officer in all this is not clear, and must depend upon the course of events and his own efforts, but his opportunity is large.

In paraphrasing the committee's report our chairman advised health officers to begin now preparing themselves for the position they should occupy in the new administration of a comprehensive medical care program. He also added a word of warning to the effect that if health officers failed to show the necessary competence and enthusiasm for the job, the public authorities might seek other leadership. This raises the question as to where and how a health officer might secure the necessary training and experience.

When more normal times return and the demands on employed health officers lessen, it will be advisable for them to pursue formal courses of instruction. Such courses should cover the elements of health insurance, public administration, and hospital management. Preferably a full academic year should be devoted to this work but, for those who cannot spare so much time, much of the same ground may be covered through short refresher courses. It is recognized that the curriculum in most schools of public health does not make provision for these subjects. However, once the demand develops, schools of public health may be relied upon to meet their responsibility for this area of interest.

More immediate steps in the way of preparation for enlarged responsibilities in the medical care field may be taken by the health officer himself on his own initiative. In many communities some provision within his health jurisdiction is made for care of the indigent sick. This function may be discharged by a physician for the poor; it may take the form of payments to practising physicians; or there may be a well organized clinic for the purpose. The health officer should interest himself in this service and accept responsibility for its administration. It will be enlightening for him to become acquainted with its problems. Within most health jurisdictions there will be general hospitals, and the health officer should interest himself in their management. If the hospital is operated by the local government, it might well be placed under the direction of the health department. If it is a voluntary hospital, the health officer might become acquainted with its policies by serving on its staff or on its board of directors. Thus it is evident that there are many ways in which a health officer might become identified, in a manner adapted to local circumstances, with current medical care activities. In doing so, he could be adding to his own information and at the same time infusing the public health concept into the operating policies of these institutions.

Content and Administration of a Medical Care Program

Hospitals and Hospital Construction *

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"THERE are extensive deficiencies in the physical facilities needed to provide reasonably adequate services. Such facilities include hospitals, health centers, and laboratories. The needs are most acute in poor communities, in rural areas, and in urban areas where the population has increased rapidly or where the development of facilities has been haphazard or the financial support inadequate." So reads the statement on needs as officially adopted by the American Public Health Association, and published in this issue.

To meet this need it is proposed by the Subcommittee on Medical Care that the American Public Health Association sponsor, in coöperation with the American Hospital Association and other health agencies, a post-war hospital and health center construction program.

FEDERAL PARTICIPATION

At the federal level the program, to be administered by the U. S. Public Health Service, would provide grants and loans for the construction of new buildings and the modernization, alteration, and enlargement of existing structures, including equipment, but not the purchase of land. In the general hospital category non-profit institutions, both governmental and non-governmental, would share in federal aid, but it would be limited in the other categories (tuberculosis and mental hospitals, health centers, and other public health department facilities) to governmental institutions.

The federal government has established the precedent under the Lanham Act of financial assistance to non-governmental hospitals for emergency construction during the war. This principle is sound, because from the strictly legal standpoint the only difference between a governmental hospital and a hospital owned and operated by a non-profit corporation is in who holds title to the property. The board of trustees of the non-profit corporation in effect holds title and operates the hospital as a trust for the community it serves. For that reason it is exempt from taxation and enjoys other special privileges under the law. A study by the U. S. Public Health Service has shown that, for all practical purposes, the governmental general hospital serving all economic groups in the community is no different from the hospital owned and operated by the non-profit corporation. Its more or less autonomous governing board, usually appointed by the governing authorities, and its sources of income, ratio of free patients, and standards of service compare with its neighboring hospital owned and operated by a non-profit corporation.

Since governmental hospitals for the acutely ill and injured in the general

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population care for only 10 per cent of all such patients and about 80 per cent are cared for in hospitals operated by non-profit corporations, limitation of federal assistance to governmental hospitals would not accomplish a great deal, unless the federal government builds hospitals to compete with existing non-governmental hospitals. That would not make sense, but in no event should federal funds be granted to a community for its hospital program where there is evidence of discrimination in the admission of patients on account of race, creed, or economic status.

STATE SURVEYS

Of equal and perhaps greater importance than federal aid with construction is the encouragement and assistance the Public Health Service will give each state with an inventory of its existing hospital and health department facilities and services and the planning of a long-range program intended to correct the weaknesses. This is a fundamental element in the program.

In most states the weaknesses are many and varied. As a general rule anybody anywhere can rent an old house, put some equipment in it, call it a hospital, and operate without supervision from any source. That is one reason why only 3,000 of the 10,000 institutions caring for the sick come up to the minimum standard for approval by the American College of Surgeons, and only 6,655 are registered by the American Medical Association.

Little is known on a national basis about the 3,000 or more other institutions of a nondescript character, because they are not subject to regulation except in two or three states and a few large cities. The absence of regulation and a definite plan and program for a national hospital service has caused duplication of effort in hospital construction and operation and the expenditure of tax funds and voluntary gifts on several small and inefficient units in a given community when one large unit is clearly indicated to give the most efficient and economical service. It is not necessary to recount the weaknesses in the public health service to this audience.

Federal grants should be made immediately to the states for surveys, which would disclose what needs to be done to improve or replace existing facilities and where additional units should be constructed, but no construction would begin until a congressional decision or a presidential declaration that the war emergency has eased to the point that labor and materials are available. Until that time only limited and very urgent construction needs should be met.

The survey itself is preferably a function of the state and it may be organized in any one of several different ways. The state planning commission or the state health department might sponsor it, or the governor might appoint an independent commission. The state hospital association might follow the American Hospital Association pattern for the nation by the appointment of an independent commission financed by private philanthropy. The important thing is to get the facts, evaluate them, and develop a workable plan that will eventually provide the people with all the essential hospital care and public health service they need according to modern standards.

This Commission on Hospital Care[1] was appointed by the Committee on Post-war Planning of the American Hospital Association for the purpose of studying the nation's resources for the institutional care of the sick and to propose a plan of action intended to improve and more effectively utilize these resources. This approach to the problem presupposes the weaknesses that have been indicated in the present organization of hospital service. This

independent commission, broadly representative of hospital administration, medicine, public health, dentistry, nursing, the farmer, labor organizations, industry, and the general public, is financed for a two year period by grants of $35,000 each from the Commonwealth Fund of New York, the National Foundation for Infantile Paralysis, and the W. K. Kellogg Foundation. Its report will be made to the nation and it plans to make detailed studies in Michigan and two or three other states from which a pattern will come for all of the other states to follow. This commission should work in close cooperation with the U. S. Public Health Service, and such coöperation is assured.

To carry out the state program will require legislation that will regulate the construction and operation of hospitals, including maintenance of high standards of service. Even the construction phase of the state program would be hampered without this cooperation on the part of the state, but where the state is slow or reluctant to act and the state health department, hospital association, local hospitals, and other health agencies will coöperate, the Public Health Service would be justified in making a study and assisting communities, hospitals, and health centers with construction in accordance with the master plan for the state. Federal aid should be available in such circumstances. Where the need exists, the probabilities are that the state government would eventually take action to make the program official, because of the pressure of public opinion.

When a state agency, such as the planning commission or the health department, sponsors the survey, the state (presumably through the governor) should appoint an advisory council composed of representatives from the hospitals, the health and architectural professions, labor, industry, agriculture, the general public, and other state agencies responsible for providing hospital and medical care and public health services.

STATE DISTRIBUTION PLAN

The state program would include not only the facts gathered in the survey, but also a master plan which would show what facilities should be constructed and where and when. Due consideration should be given to the interrelation between existing and proposed facilities within each service district as blocked out by the state agency.

For hospitals the service district would in general follow the trade area of the larger centers of population and the strongest teaching and diagnostic centers, usually found in these larger places, would be the "primary" hospitals. The "secondary" hospital centers, generally less comprehensive than the "primary" centers with respect to staff, specialists, and physical facilities, would still be strong enough to serve the satellite "tertiary" centers within the area for consultative and specialist services, especially because the "secondary" centers should be effectively linked with the "primary" centers. The "tertiary" centers would include, but not be restricted to, the small hospitals and health centers in rural and semirural areas.

The master plan would also reflect due consideration for the provision of general hospital and health center facilities to serve the residents of rural areas and as a means of inducing physicians to locate in such areas. The desirability of combining hospital facilities with the housing of offices for physicians, dentists, clinics, and health departments should be stressed.

The community hospital and the local health department have grown up separately and have never become well acquainted with each other. Health service for the people is indivisible.

The most efficient service at the lowest possible cost requires complete coördination of its three major components—the physician, the hospital, and the health department. In rural America, where all three of these components are comparatively inadequate and application of the principles of coördination is much simpler than in the large cities, the community hospital might well become the community health or medical center by placing the health department and the offices of physicians and dentists under the same roof.

The logical person to direct this combined health program is the public health officer, but with rare exceptions hospital administration has not been his function in the past. The wise health officer will compensate for this lack of training by employing a competent assistant who is experienced in hospital administration or by using as a consultant an experienced administrator in the nearest large city. Hospital administration may eventually become a part of the curriculum in the school of public health.

STATE ADMINISTRATION

A single state agency would be responsible for administration of the program (covering all types of eligible facilities) which would develop following approval of the state distribution plan. This would preferably be the same state agency which made the survey of resources and needs and formulated the state distribution plan. It is anticipated that it would be a different agency only in those states in which the creation of a new agency would be necessary for participation in this program and, in order to avoid delays, a temporary agency was created to initiate state action and to be responsible for the groundwork on the program until a more permanent state agency could be created. The responsibilities of this state agency administering the program would include the preparation of the state's periodic requests for federal funds, determination of the eligibility of individual projects to share in the federal funds, coördination of existing facilities so as to carry out the state agency's districting system, and supervision of the scheduling and progress of construction to insure adherence to the state plan.

In determining the eligibility of individual projects for participation in federal funds, assurance of the individual soundness of the project and of its conformity with the state plan from such standpoints as need for the facility, type of service, location, size, and coordination with other facilities within the same district would be necessary. There would have to be reasonable assurance of an adequate staff organization, efficient management, and proper financial support for effective operation when construction was completed. Plans and specifications would be approved by the Public Health Service prior to construction contract award, for no project would be eligible for federal aid without that prior approval.

The grants-in-aid to the states would be on a variable matching basis and the availability of funds to cover the non-federal contribution to the project would have to be assured. These funds might come from several different sources. The state, county, or municipal governing authorities might make contributions from tax funds, or from funds raised by bond issue, or by loans from the federal government. Private philanthropy would come strongly into the picture, as it always has in the past. The raising of the local contribution by mortgage on the non-governmental hospital should be discouraged and perhaps prohibited entirely.

FEDERAL ADMINISTRATION

The Surgeon General would, with the approval of the Federal Security Ad-

ministrator, issue regulations for the administration of this program. He would be advised by a council appointed by the Federal Security Administrator, or by the Surgeon General with the approval of the Administrator, and representing hospitals, the medical profession, public health agencies, the architectural profession, labor, industry, agriculture, and the general public.

The Public Health Service would, in coöperation with the professional organizations concerned, develop, for the guidance of the states, standards for the various categories of eligible facilities, pointing up necessary elements of construction and their interrelation.

SUMMARY

The major objective of this program would be a planned distribution of hospital and health center facilities that would serve all residents of those states and jurisdictions electing to participate. The planning would be done by the states, since planning at that level affords greater perspective than planning at a more local level, and at the same time assures consideration of area differentiations. The federal rôle would be pointed toward minimum supervision and maximum assistance in planning both the individual project and the general distribution of hospital and health center services for the purpose of providing each community with the best possible facility from the standpoints of architectural planning and economy of operation.

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Content and Administration of a Medical Care Program

Training of Personnel and Research *

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THE provision of a comprehensive program of medical care requires a comprehensive plan for the training of personnel and their distribution on the basis of the needs of the population. The maintenance of a high quality of medical service, improvement of therapeutic technics, and the introduction of economies resulting from discoveries of methods of disease prevention are the objectives of the research which is a second essential foundation for a comprehensive medical care program. These basic principles have been recognized by the Subcommittee on Medical Care and are embodied in Recommendations VI, VII, and VIII of its Preliminary Report.

A nation-wide program of health and medical services will require the coordinated action of a wide variety of professional and technical personnel, including general practitioners, specialists, dentists, nurses trained for general bedside care, public health and other nursing specialties, medical social workers, sanitary engineers, health educators, laboratory specialists and the technicians, and auxiliary personnel required in hospitals, clinics, and health departments. An adequate health program will require greatly increased numbers of personnel in all of these fields. Numerous educational institutions, health and medical agencies and organizations must coöperate in a training program of this scope.

Physicians, nurses, and lay administrators must be trained for the specific administrative and supervisory duties of the medical care program. Expansion of the preventive services provided by health departments will require additional physicians trained as health officers and administrators of special activities, and public health nursing supervisors. As an immediate adaptation of such training to the personnel needs of the future, the subcommittee recommends that state health departments should utilize funds now available to prepare these personnel for the administration of medical as well as health services. This recommendation of the subcommittee is of special significance to this Association, since the necessary action on the part of state health departments and the schools of public health, more than any other single activity, may determine the rôle of the official health agency in the health program of the future.

The major emphasis of the research supported as part of a comprehensive health program should be placed on the control of diseases the care of which by present methods is so costly as to be difficult to finance adequately even with tax support. Mental disease, dental caries, rheumatic fever, particularly in its relation to the broad problem of diseases of the heart, and the processes of aging are among the fields

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of research which should be subsidized from public funds. In addition, provision should be made for personnel research, administrative studies, and experimental demonstrations required for the improvement of organized methods of distributing health services, and the support of basic research by the faculty of educational institutions which is essential to the maintenance of professional standards.

TRAINING OF PERSONNEL

Scope of the training program—The training program is concerned with the basic and postgraduate education provided by medical schools, schools of public health, dental and nursing schools, by selected departments of university graduate schools, and with certain types of technical and vocational training below the professional and graduate levels. However, its educational objectives extend beyond preinduction training to training in service; hospitals, clinics, state and local health departments, special educational demonstrations, field training centers, and professional public health and medical associations must be coördinated in the general program.

The training program should include funds for the following purposes:

1. Scholarships for unusually gifted students who otherwise might not be able to pursue basic health and medical education
2. Grants for postgraduate education of health and medical personnel, including refresher courses
3. Grants for the promotion of postgraduate education among the faculty of the professional schools concerned
4. Grants to aid in the organization of new training and demonstration facilities required, including professional schools, individual university departments, coördinated facilities for continuation study, field training centers and experimental demonstrations
5. Support of studies to aid in the wise allocation of training funds, including periodic estimates of overall personnel needs, methods of selecting properly qualified trainees, reexamination of the content of various basic professional curricula, and the development of criteria for the approval of educational and other institutions participating in the program

Medical education—It has been estimated that as many as 25,000 additional physicians might be required to render adequate service to the post-war population. Continuation after the war of the present emergency program in medical schools until the physician deficit is removed would be one way of meeting the issue. However, under the most favorable circumstances, not for some time to come is it likely that such an increase in physician output can be anticipated. As an immediate adjustment to the situation, it is extremely important that the time and energy of physicians be utilized to full capacity.

To this end, the training program should make special provision for the appraisal and possible extension of existing facilities for the training of established types of medical technicians and other auxiliaries, and for investigations of methods of utilizing new types of subordinate personnel. Large well organized clinics have recognized the economy in having such services as admissions, history taking, temperature and blood pressure readings performed by non-medical personnel. While the utilization of such auxiliaries would increase the time available for professional service by the private practitioner, his individual resources cannot support their employment at present. The increase in group practice which would probably take place under a comprehensive plan of medical care should increase the utilization of nurses, laboratory and x-ray technicians, and other technical personnel in the performance of many services which the individual practitioner now provides singlehanded. The technic of the job analysis should be applied to the physician's working schedule, under conditions of both individual and group

practice, to determine the possibility of transferring additional technical procedures to appropriate subordinate personnel.

In addition to an increase in the number of physicians, a major need in the field of undergraduate medical education is a reorientation of the present curriculum. There should be increased emphasis in undergraduate medical teaching on methods of keeping well people well. Furthermore, the content of the course in preventive medicine should be widened to include the broad field of organized medical care, comprising both prevention and treatment, and a consideration of the social factors involved. Such revisions of the medical curriculum eventually should produce medical practitioners whose basic training has prepared them to meet the objectives of a comprehensive health service. It is hoped that a by-product of such changes in undergraduate medical education would be the presentation of administrative medicine and public health as desirable fields for specialization.

Within the resources of the program, financial aid should be made available to hospitals to raise the educational standards of the internship and residency according to the principles formulated by the Commission on Graduate Medical Education.[1] Funds should be provided to enable hospitals to support residencies in critical specialties which would not otherwise be offered, and to encourage their election by an adequate number of qualified candidates.

Medical schools and hospitals should be coördinated in a broad program of continuing education for general practitioners and specialists after they have entered practice. At the outset, a formal system of continuation study should be organized. As the construction of hospitals, clinics, and health centers provided under the national program proceeds, increasing facilities for clinical experience and consultation, the education of the general practitioner will become in fact continuous, and formal courses less necessary. The program of postgraduate education for general practitioners should include organized periodic refresher courses in clinical medicine and opportunities for short periods of intensive study of individual subjects. The Committee on Post-war Medical Service and the Council on Medical Education and Hospitals of the American Medical Association are now actively engaged in planning to meet the training requirements of physicians in the period of demobilization. The coöperation of the Public Health Service, Veterans' Administration, of hospitals, medical schools, American boards in the medical specialties, and other agencies in these plans for post-war medical training suggest the type of joint effort which will be required in a national training program.

Graduate education in public health—Medical administrators required to coordinate services at the local level will present an urgent personnel need under a comprehensive medical care program. The subcommittee believes that the schools of public health are the appropriate training institutions for personnel of this type. The curriculum of the leading schools of public health has been developed to meet the needs of two broad classes of trainee, medical and non-medical. The basic curriculum now offered for medical trainees, typified by the health officer, should be revised to meet the training needs of other types of medical administrators, including those required in local medical care programs, and in the administration of hospitals, clinics, and health centers. In the construction of this basic curriculum in administrative medicine and public health, attention should be given to the need for instruction in the principles of administration, including per-

sonnel management, staff education, program planning, and the financial procedures involved in the administration of public agencies. Additional courses should be introduced to permit medical trainees to elect specialization in the administration of medical care programs, the administration of hospitals or other medical agencies, general public health administration, or the administration of special public health activities such as venereal disease control, tuberculosis control, etc. While no single school should be expected to develop so broad an educational program, facilities for training in all of these specialties should be available in one or another of the schools of public health.

Finally, it is desirable that the training program in organized medicine and public health include field experience in agencies providing the types of service which the trainees plan to enter. The high cost of maintaining field training centers with adequate full-time teaching staff will limit greatly the number of these centers which the schools of public health can provide. Financial support of such centers in health departments and other agencies in a number adequate to meet the needs of the national training program should be provided as part of the overall costs of medical care.

Approval of existing schools of public health for financial aid under a national medical care program should be based on their satisfaction of appropriate educational standards. The Association of Schools of Public Health in coöperation with the Public Health Service is now engaged in a preliminary appraisal which will contribute some bases for rating the effectiveness of the schools. However, extension of personnel research is a prerequisite for the construction of an adequate curriculum for the schools of public health.

The post-war population would require 4,100 physicians to staff its local health departments if each population unit of 100,000 had a health officer and two medical bureau directors; in addition, it is estimated that 1,400 physicians would be required by the state health departments and the U. S. Public Health Service. This combined total of some 5,500 public health physicians required under an expanded public health program exceeds by 2,400 the number of public health physicians employed before the war. Such a shortage of public health physicians, combined with the need for administrators of the medical care program, might greatly increase the number of medical trainees seeking admission to the schools of public health in the post-war period.

It is estimated that immediately prior to the war the schools of public health had a combined capacity for approximately 200 medical trainees as candidates for graduate degrees or certificates requiring at least one full academic year of study. The facilities of some of the existing schools of public health probably could be expanded to accommodate a small number of additional medical trainees, but new schools would be essential if the increase in applicants were substantial. Financial aid to promote the expansion of existing schools of public health and the organization of new schools should be included as part of the essential costs of the program. With respect to non-medical public health personnel, studies should be undertaken to determine the appropriate training field of the schools of public health and of other educational institutions. For example, it seems possible that expansion to provide additional training facilities for certain types of technical (non-medical) public health personnel could be made with greater economy by the graduate schools of certain universities than by the schools of public health. Investigation of facilities for the training of technical public health personnel not requiring education at

the graduate level should form part of this program of studies.

The effective use of training opportunities provided under the program should be insured by the selection of trainees having personal qualifications for the type of position they expect to fill. An essential requirement of a system of trainee-selection for administrative medical personnel is a field center in which the trainee's aptitude for administrative duties may be appraised before he enters a period of formal training at a school of public health. New York State has devised a system which includes a field assignment of 6 to 12 months' duration, rotating among the state health districts with final observation in the central office.[2] However, the needs of the training program may require federal assistance in the selection of trainees. Such assistance might take the form of a national screening center for potential trainees, or a decentralized system developed in the field training centers.

Training of nursing personnel—While available estimates of the number of nurses needed for a comprehensive health and medical care program are not in agreement, they rest on the common assumption that the volume of nursing service will be increased greatly. A considerable body of professional opinion believes that this need should be met by a gradual reduction in the number of graduate professional nurses trained each year with an improvement in their educational program, accompanied by a gradual increase in the number of vocational (practical) nurses. It has been estimated that in its tenth year of operation a program of adequate public health and medical services would require about 300,000 graduate professional nurses, annual admissions of about 30,000 students to professional schools of nursing, and about 180,000 vocational nurses. This compares with present figures of about 260,000 graduate nurses (including those in the armed forces), 65,000 admissions to professional nursing schools, and about 70,000 auxiliary personnel.

Under an expanded health program, it seems probable that public funds would be needed to train the required number of graduate nurses for public health, psychiatric practice, and other specialties, as well as to support an adequate training program for vocational nurses. The use of auxiliary personnel in the field of nursing should receive special study in view of the probable shortage of professional nurses. Under the supervision of graduate nurses, auxiliary nursing personnel can give effective service in public health clinics, in the school health program and in selected types of home visiting. The war has demonstrated the value of nursing auxiliaries in institutional care of the sick. Aside from the need for funds, the training program should provide for technical studies bearing on the development of educational standards for the training of vocational nurses and other nursing auxiliaries. In this connection, it is of interest that the U. S. Office of Education at present is sponsoring a plan for the organization of an educational institution to train vocational nurses, supported by Smith-Hughes funds.

Personnel problems in dentistry—The present disparity between the receipt of dental care and the true dental needs of the population is so marked that society probably could not support its correction solely through an increase in the number of dentists. In the immediate pre-war period (1940), approximately 70,000 dentists were engaged in practice. Klein has estimated that approximately 130,000 dentists, or almost twice the pre-war number, would be required for the care of the dental disease and defects incident each year; and with the present capacity of dental schools doubled, their training would

take more than a generation. This estimate does not take into account the dentists required to care for accumulated dental needs.[3]

Long-range planning is therefore essential for the ultimate provision of adequate dental care. A fundamental requirement of such a program is the initiation of research in the cause and control of dental disease. A second essential is the eventual elimination of the problem of accumulated dental needs by the provision of the dental services required each year to maintain the dental health of children. Continuing research in methods of increasing the productivity of the available dentists offers a third approach to the problem. Klein has shown that the simple expedient of adding an extra chair to an individual dentist's office increases the volume of work he performs by 25 per cent, and the addition of a chair and a dental assistant, by 63 per cent.[4] Exploration of new uses for dental assistants, dental hygienists and other auxiliary personnel offers a means of further increasing the productivity of dentists. While dentists probably could assign many of their operations to dental hygienists, only 3 per cent of the dentists included in Klein's survey employed dental hygienists.[4] Thus, in dentistry as in medicine and nursing, studies of the more effective use of auxiliary personnel, and financial assistance for their training and utilization are an essential part of the broad personnel program.

Distribution of service personnel—The subcommittee has recommended that professional and financial stimuli should be devised to encourage physicians, dentists, nurses, and others to practice in rural areas. Plans to encourage the rational distribution of physicians should be developed as quickly as possible in view of the coming demobilization of the armed forces. Since diagnostic and therapeutic technics are constantly changing, alert and ambitious physicians have been reluctant to locate in rural areas where professional association is restricted and hospital and laboratory facilities are inaccessible. As hospitals and related facilities are provided in the rural areas, rural practice will become more attractive to young physicians, and their continuing education will be assured.

The immediate need, however, is an integration of the services of hospitals and health centers to make available to physicians in smaller cities and rural areas the educational advantages of these institutions. Periodic refresher courses should be provided in the large medical teaching centers. Establishment and support of a corps of substitutes to carry on the work of physicians during absence from their communities while attending refresher courses, should serve as a stimulus to broad physician participation in such a program. The circuit courses developed by some of the state medical societies represent a type of course adapted to physicians in areas remote from the large teaching centers. The postgraduate medical program conducted by the Bingham Associates Fund in coöperation with the Tufts College Medical School is an interesting example of a decentralized training plan for physicians in the small communities of New England.[5]

Finally, steps must be taken to equalize the income of urban and rural practitioners. Arrangement — either through insurance or tax supported plans—to compensate for the inability of many individuals to purchase medical care may accomplish this end only in part. As a further incentive to physicians to settle in rural localities, it may be necessary to provide government financial aid for rural practitioners. By this means it may be possible after the war to attract physicians to the communities most in need of

medical service. Particularly, demobilized physicians, who entered military service after the completion of intern training and left no established practice, might be amenable to this arrangement.

To assure a continued supply of young physicians to rural areas, consideration might well be given to the feasibility of financial aid for the basic education of medical students who agree to serve in rural areas. Under such a system, assignment of new graduates to under-staffed communities should be facilitated.

RESEARCH

The subcommittee has recommended that funds for the support of research be included in the overall costs of a comprehensive medical care program. Funds should be made available to federal, state, and local governmental agencies for research and for grants-in-aid to private non-profit institutions for the support of basic laboratory and clinical research and for administrative studies and demonstrations designed to improve the quality and lessen the cost of services. It is the belief of the subcommittee that governmental action is necessary in health and medical research to insure the continuity of research programs and to facilitate the coöperation in the research problems in this field of the variety of professional skills so often necessary for their solution. Some of the work should be done in federal government centers and a large part in state and local educational and other institutions, public and private, assisted where necessary through grants-in-aid. In other words, there should be planned action and the coördinated activity of research workers in medicine and its underlying sciences, engineering, statistics, economics, public administration, and the other great variety of fields having a part to play in the development of a program of health and medical services.

The research problems selected for public support would be those whose solution would bring a substantial improvement in health and a reduction in the costs of the national medical care program. The national research program should give early attention to administrative studies of methods of distributing medical services appropriate to the varying needs of urban and rural groups. The pattern of a program for organized home and office care of the sick is being established by the prepayment plans now operating under state and local medical societies, industry, and various consumer groups, and by the existing system of public medical care. However, governmental support of experimental demonstrations and other research projects in this field will be essential to supply the technical information required to direct expansion of the medical care program. Personnel research is a related field of investigation which should be supported from public funds, and experimental demonstrations and field centers will be required where the effectiveness of new types of subordinate personnel as professional aides may receive practical testing.

The program should support research studies of problems emerging from new and special situations which are beyond the resources of private research institutions alone. Examples of such fields of investigation are the tropical diseases, medical climatology, and the potential industrial health hazards resulting from the use of new materials and processes developed during the war. Aside from the special health problems of industry created by the war, the program should provide for an adequate expansion of the industrial hygiene research in progress prior to the war. Research in this field is of recent origin in this country. Because of the variety of professional skills and the specialized laboratory facilities required in the investi-

gation of industrial health problems, public support is essential to the extension of our knowledge of methods of protecting and improving the worker's health. Research in industrial feeding is an allied project for which public funds should be made available. In addition, nutrition research should provide support of investigations in the prevention and diagnosis of the deficiency diseases, and methods of nutrition education.

A coördinated program of research on dental caries and other oral diseases is another major field of investigation requiring public support. It has been shown that a community water supply containing small concentrations of fluorides materially decreases the incidence of dental caries. A broad program of studies of the epidemiology of this disease and the possibilities of fluoride therapy holds promise of discovering a basis for its control. Research in other oral diseases is equally urgent. In no other field of public health is the demand for research more pressing or the etiology more obscure.

The nervous and mental diseases should receive major emphasis in a national research program. While a large proportion of public funds for medical care is diverted to institutional care of the mentally ill, there is relatively little public support of research in methods of prevention of mental disease. The cardiovascular-renal group of diseases provides another example of the chronic diseases presenting urgent research problems which are being approached inadequately through private effort. Public support of research in tuberculosis, cancer, and the venereal diseases already has received legislative and professional approval. A national research program should extend public funds for research in the chronic diseases and in the general problems associated with aging.

The central coördination of research activities in these major fields will be essential to the effective operation of the program and the evaluation of results. It is believed that research facilities under the direction of an appropriate federal agency should be organized to fulfil this function. These centers would include laboratories and clinical facilities for research as well as the necessary administrative activities.

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Medical Care in a National Health Program

An Official Statement of the American Public Health Association Adopted October 4, 1944

AT the annual meeting of the Committee on Administrative Practice of the American Public Health Association, October 9, 1943, the committee directed its Subcommittee on Medical Care to draft a set of principles expressing the desirable content of a comprehensive program of medical care, the methods of its administration, and the part which public health agencies should take in its operation. In pursuit of this assignment, the subcommittee completed a tentative draft, which was considered and adopted by the Committee on Administrative Practice at its meeting, October 1, 1944. The report was then transmitted to the Governing Council of the Association where, after certain revisions, it was adopted as a statement of Association policy.

Because of its composition and charge, the subcommittee has limited its considerations to one sector of a comprehensive national health program, namely, medical care.

In preparing the report, the subcommittee has considered:

A. The needs for a national program for medical care

B. The objectives of such a program

C. Recommendations for immediate action

The American Public Health Association through its national organization and its constituent societies stands ready to collaborate with the various professional bodies and civic organizations which may be concerned with either the provision or receipt of medical service with a view to implementing the following general principles:

A. THE NEEDS

I. A large portion of the population receives insufficient and inadequate medical care, chiefly because persons are unable to pay the costs of services on an individual payment basis when they are needed, or because the services are not available.

II. There are extensive deficiencies in the physical facilities needed to provide reasonably adequate services. Such facilities include hospitals, health centers and laboratories. The needs are most acute in poor communities, in rural areas, and in urban areas where the population has increased rapidly or where the development of facilities has been haphazard or the financial support inadequate.

III. There are extensive deficiencies in the number and the distribution of personnel needed to provide the services. Here again, the needs vary according to categories of personnel and to characteristics of communities.

IV. There are extensive deficiencies in the number and categories of personnel qualified to administer facilities and services.

V. Many communities still are not served by public health departments; others inadequately maintain such departments. Thus, some communities

have never utilized organized health work to reduce the burden of illness, and others share its benefits only in part. In these communities especially, people lack information on the benefits of modern medical care.

VI. Expansion of scientific research is urgently needed. Despite past and current scientific advances, knowledge as to the prevention, control, or cure of many diseases is lacking.

Each of the six conditions defined above can be broken down into many component parts representing specific needs. In general, however, solutions of these broad problems require simultaneous attack on four fronts: namely, the distribution of costs, construction of facilities, training of personnel, and expansion of knowledge.

B. THE OBJECTIVES

I. A national program for medical care should make available to the entire population all essential preventive, diagnostic, and curative services.

II. Such a program should insure that the services provided be of the highest standard, and that they be rendered under conditions satisfactory both to the public and to the professions.

III. Such a program should include the constant evaluation of practices and the extension of scientific knowledge.

C. RECOMMENDATIONS

The recommendations presented in this report represent guides to the formulation of a policy for action. It is believed that study of these recommendations by the professions and others concerned in the states and localities will produce new and more specific recommendations for the attainment of the objectives of a national health program.

Recommendation I. The Services

a. A national plan should aim to provide comprehensive services for all the people in all areas of the country. In light of present-day knowledge, the services should include hospital care, the services of physicians (general practitioners and specialists), supplementary laboratory and diagnostic services, nursing care, essential dental services, and prescribed medicines and appliances. These details of content must remain subject to alteration according to changes in knowledge, practices, and organization of services.

Because of inadequacies in personnel and facilities, this goal cannot be attained at once; but it should be attained within ten years. At the outset, as many of the services as possible should be provided for the nation as a whole, having regard for resources in personnel and facilities in local areas. The scope of service should then be extended as rapidly as possible, accelerated by provisions to insure the training of needed personnel, and the development of facilities and organization.

b. It is imperative that the plan include and emphasize the provision of preventive services for the whole population. Such services include maternity and child hygiene, school health services, control of communicable diseases, special provisions for tuberculosis, venereal diseases, and other preventable diseases, laboratory diagnosis, nutrition, health education, vital records, and other accepted functions of public health agencies, which are now provided for a part of the population.

c. In so far as may be consistent with the requirements of a national plan, states and communities should have wide lattitude in adapting their services and methods of administration to local needs and conditions.

Recommendation II. Financing the Services

a. Services should be adequately and securely financed through social insur-

ance supplemented by general taxation, or by general taxation alone. Financing through social insurance alone would result in the exclusion of certain economic groups and might possibly exclude certain occupational segments of the population.

b. The services should be financed on a nation-wide basis, in accordance with ability to pay, with federal and state participation, and under conditions which will permit the federal government to equalize the burdens of cost among the states.

Recommendation III. Organization and Administration of Services

a. A single responsible agency is a fundamental requisite to effective administration at all levels—federal, state, and local. The public health agencies —federal, state and local—should carry major responsibilities in administering the health services of the future. Because of administrative experience, and accustomed responsibility for a public trust, they are uniquely fitted among public agencies to assume larger responsibilities and to discharge their duties to the public with integrity and skill. The existing public health agencies, as now constituted, may not be ready and may not be suitably constituted and organized, in all cases, to assume all of the administrative tasks implicit in an expanded national health service. Public health officials, however, should be planning to discharge these larger responsibilities, and should be training themselves and their staffs. This preparation should be undertaken now because, when the public comes to consider where administrative responsibilities shall be lodged, it will be influenced in large measure by the readiness for such duties displayed by public health officers and by the initiative they have taken in fitting themselves for the task.

b. The agency authorized to administer such a program should have the advice and counsel of a body representing the professions, other sources of services, and the recipients of services.

c. Private practitioners in each local administrative area should be paid according to the method they prefer, *i.e.*, fee-for-service, capitation, salary, or any combination of these. None of the methods is perfect; but attention is called to the fact that fee-for-service alone is not well adapted to a system of wide coverage.

d. The principle of free choice should be preserved to the population and the professions.

e. State departments of health and other health agencies are urged to initiate studies to determine the logical and practical administrative areas for a national medical care plan.

Recommendation IV. Physical Facilities

a. Preceding, or accompanying, the development of a plan to finance and administer services, a program should be developed for the construction of needed hospitals, health centers, and related facilities, including modernization and expansion of existing structures. This program should be based on federal aid to the states and allow for participation by voluntary as well as public agencies, with suitable controls to insure the economical and community-wide use of public funds. The desirability of combining hospital facilities with the housing of physicians' offices, clinics, and health departments should be stressed.

b. Federal aid to the states should be given on a variable matching basis in accordance with the economic status of each state.

c. Because of its record of experience and accomplishment in this field, the U. S. Public Health Service should administer the construction program at

the federal level, in coöperation with the federal agencies responsible for health services and construction.

d. Funds available under this program should be granted only if:

(1) The state administrative agency has surveyed the needs of the state for hospitals, health centers, and related facilities, and has drawn up a master plan for the development of the needed facilities (taking account of facilities in adjacent states); or, in the absence of a state plan, the project is consistent with surveys of construction needs made by the U. S. Public Health Service;

(2) The proposed individual project is consistent with the master plan for the state; its architectural and engineering plans and specifications have been approved by the state agency and/or the U. S. Public Health Service; and there is reasonable assurance of support and maintenance of the project in accordance with adequate standards.

e. State health departments are urged to conduct studies to develop state plans for the construction of needed hospitals, health centers, and related facilities. Such studies should be made in coöperation with official health agencies, with state hospital associations, and other groups having special knowledge or interests.

Recommendation V. Coördination and Organization of Official Health Agencies

a. The activities of the multiple national, state, and local health agencies should be coördinated with the services provided by a national program. There is no functional or administrative justification for dividing human beings or illnesses into many categories to be dealt with by numerous independent administrations. It is difficult to reorganize agencies or to combine activities, and this cannot be accomplished hurriedly. Therefore studies and conferences should be undertaken without delay at the federal level, and in those states and communities where the health structure is already unnecessarily complex.

b. The federal and state governments should provide increased grants for the extension of adequate public health organization to all areas in all states. Increased federal grants should be made conditional upon the requirement that public health services of at least a specified minimum content shall be available in all areas of the state.

Recommendation VI. Training and Distribution of Service Personnel

a. Within the resources of the program, financial provisions should be made to assist qualified professional and technical personnel in obtaining postgraduate education and training.

b. The plan should provide for the study of more effective use of auxilliary personnel (such as dental hygienists, nursing aides, and technicians), and should furnish financial assistance for their training and utilization.

c. Professional and financial stimuli should be devised to encourage physicians, dentists, nurses, and others to practise in rural areas. Plans to encourage the rational distribution of personnel, especially physicians, should be developed as quickly as possible, in view of the coming demobilization of the armed forces. Such plans should be integrated with the whole scheme of services and the establishment of more adequate physical facilities.

Recommendation VII. Education and Training of Administrative Personnel

a. Education and training of administrative personnel should be encouraged financially and technically, especially for those who may serve

as administrators of the medical care program, for hospital and health center administrators, and for nursing supervisors.

b. State health departments should utilize those funds that may be available to train personnel in such technics as administration of health and medical services, and hospitals. Such a training program may contribute more than any other single activity to the future rôle of the official public health agency. As a corollary, the attention of schools of public health is directed to the importance of establishing the necessary training courses.

Recommendation VIII. Expansion of Research

a. Increased funds should be made available to the U. S. Public Health Service and to other agencies of government (federal, state, and local), and for grants-in-aid to non-profit institutions for basic laboratory and clinical research and for administrative studies and demonstrations designed to improve the quality and lessen the cost of services.

b. The research agencies and those responsible for making grants-in-aid should be assisted by competent professional advisory bodies to insure the wise and efficient use of public funds.

Educational Implications of the School Health Program*

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THIS war is an opportunity and a challenge to health education. Youth and adults easily grasp the importance of total fitness in war. This is illustrated by the results of medical examinations of high school boys for the Physical Fitness Victory Corps Program. A substantial number of these youths are found to have physical abnormalities which are amenable to treatment. It has been a common experience in many parts of the country that within a few months practically 100 per cent of the boys have secured medical attention. A study of their previous medical records has shown that the vast majority have had their physical defects for some years—without securing treatment. Herein lies one of the unknown elements of health education. We apparently have yet to learn how to get action. Yet, incentives for physical fitness are not necessarily dependent upon a war atmosphere for a desire for war service. In peacetime the same quick response is observed in connection with the medical examination of girls and boys who apply for working papers. The urgency of a prospective job leads to their securing treatment for conditions which have existed and been known to them for some time. But the point is that, in war or peace, too frequently some other factor, not the health examination, is the motivating force which produces action.

The other day a school administrator, in discussing this problem, said: "You know, that reminds me of something I haven't thought of for years. When I was in grammar school, my sister brought home a cryptic note from school saying she needed glasses. My father simply ignored it. A few days later I brought home a note which stated the same thing. My father only laughed and said, 'The school people don't know what they are talking about; you don't need any glasses.' A few weeks later we went to a baseball game together. The game was under way when we arrived, and as we settled ourselves in our seats, my father asked the score. When I looked over to the scoreboard all I could see was a blur. So I told him I didn't know what the score was. He said 'Look at the scoreboard and see.' I had to confess I couldn't see the numbers. The next day my sister and I got glasses."

DISCOVER TEACHABLE MOMENTS IN THE CHILD'S DAILY LIFE

Must we always have to wait for a war or some other compelling but fortuitous event to capture the interest of children and to vitalize our health teaching? As long as health education is thought of in terms of formal health instruction, rich opportunities for

* Based on talk given at Wartime Conference on School Health Education, Hartford, Conn., January 18, 1944.

health education in school are lost. The school medical examination, vision testing of all children at periodic intervals, the luncheons children eat in school, and their many other activities have great educational value. They create attitudes; influence behavior; and leave, in most instances, lasting impressions because they are real life situations. They are teachable moments, and for the most part, we make no use of them in health education. Would many more youths have solved their medical problems long before the Victory Corps program if their previous school medical examinations had been planned as a real and vital experience? We know only too well the kind of school medical examination many of them experienced. They came through it like the boys in the Biblical story who passed through the fiery furnace—untouched! Certainly if the purpose of health education is to develop individuals whose knowledge and attitudes govern their daily living, then our most urgent task as health educators is to study opportunities in the school as well as in the child's out-of-school time to identify the teachable moments and see that they have positive value. This is not a new idea. But it has not yet influenced our school health procedures. The things we do to children and the things we endeavor to teach them in matters of health are for the most part unrelated. The classic and oft-quoted illustration is the emphasis put on teaching hand washing in the schools, but not providing the children with facilities for hand washing in the school.

EDUCATIONAL IMPLICATIONS OF THE SCHOOL MEDICAL EXAMINATION

The educational implications of the medical examination are perhaps most evident. Yet there is an appalling waste of opportunity for health teaching in the hundreds of thousands of routine school medical examinations performed in our schools every year. In spite of efforts to improve the quality of the school medical examination, in too many communities it still has only an imperceptible, positive current of health education, and in some places, the examination carries with it a highly shocking negative charge. Our children as a rule do not lack for medical examinations, but we fail to educate effectively in the process.

These are bad times to talk about improving the school medical examination. But it must be thought about and planned for now; otherwise, in 1960 we shall still be making speeches about the deplorable health of our youth as revealed by Selective Service examinations.

Suppose we could plan a school medical examination which would be an integral part of the child's education; how should we go about it? The impression made on child and parent in the course of giving the examination is most important. The educational and psychological effect of the school physician's and nurse's contact with the child is fundamental and obvious. One might think it unquestionably a conscious part of the school medical examination. Unfortunately, this is an essential part which has often been neglected. So much emphasis has been placed on finding defects that the child himself is overlooked. The late MacFee Campbell said that "the real child is more than an assemblage of organs plus a receptacle for school information. He is a complex bundle of highly organized instincts, emotions, and attitudes, and attention to these attitudes is more important than attention to his teeth."

PREPARATION IS NECESSARY

To make a favorable impression on the child and his parents, planning is necessary. The teacher, the nurse, and

the physician must understand the educational objective. Following are some of the ways this objective can be attained.

1. The teacher can discuss with the classroom the medical examination to prepare the younger children for their meeting with the doctor as a happy experience, and the older ones to ask questions, and to be prepared to act on any findings.
2. Where measuring of height and weight and vision testing are part of the classroom teacher's activities, these can be incorporated into her regular instruction.
3. Older children may assist with the testing procedures.
4. When the nurse does these tests, they should be discussed and interpreted to the teacher.
5. The nurse may furnish material which would be helpful in a classroom discussion of growth, seeing, and hearing.
6. A parents' meeting early in the school year may give the physician or nurse the opportunity to discuss the health service.
7. Parents should receive a special invitation to be present at the school examination. They should be informed of the date well in advance so they can plan to come. It will be necessary probably to send them a reminder the day before the event. The value of the parent being present is so obvious I do not think I need to elaborate.

MAKING THE EXAMINATION A TEACHABLE MOMENT

There should be a reasonable amount of privacy for the examination done at the school; the parent should have a definite appointment so as not to be kept waiting too long; doctor and nurse should be pleasant, and the child should be spoken to by his first name. These details may seem trivial, but they are essential, and they pay dividends in health education. Even today, when so many mothers are working, the attendance of mothers continues to be astonishingly high where attention has been paid to these details.

The examination should not only acquaint the mother with the significance of the defects found, and direct her on the pathway to treatment, but also give the mother of the healthy child satisfaction and information. The physician may give advice on the child's diet, or hours of rest and study, or discuss the signs of a communicable disease which may be prevalent; or explain why it is important to keep a child at home when he shows the first signs of a cold; or give information and guidance on many other health matters. This face-to-face discussion with the physician, whether in school or private office, is both a rare and unequalled opportunity for health education.

The greatest good the young child may derive from the medical examination is a satisfying experience. By a patient, gentle manner, avoidance of threats or comments which create concern or confusion, and by telling each child something about his physical condition of which he can be proud, the physician will create in the child's mind a favorable impression of the examination. For older children, especially at the secondary school level, an explanation by the doctor of his findings and answering of questions, may equal in value the conference with the mothers of younger children.

The school medical examination is the occasion when the accepted medical authority can bring his influence to bear for good or ill. His influence operates through the manner in which he conducts himself with the child and parent, and by his interpretation of the results of the examination. The right approach can make the examination the cornerstone in the school health education program. It is only occasionally that the school medical examination *per se* makes a contribution to the child. It is what the child and his family *learn* from it that has long-term value.

TEACHER PARTICIPATION IN A MEDICAL EXAMINATION

The full educational implication of the medical examination will not be

realized unless the teacher can be made aware of the findings. A common method is to place a check mark on the academic record opposite the name of the part of the body which the doctor finds defective. Another way is to send the teacher a simple statement of the condition of each child and what she can do about any defects found. It would be ideal if the physician could talk with the teacher about his findings. Teachers should be given the opportunity occasionally to observe the school medical examination. This is necessary if the teacher is to have sufficient understanding of the procedure to prepare children for it through classroom instruction. In some schools, the physician has an occasional conference with teachers to exchange information. The school nurse can do this and does in many schools where there is very little school medical service. Through these contacts, the school doctor and nurse get valuable insight into the daily behavior of children, and the teacher gets information for health instruction and observation.

COÖPORATION BETWEEN EDUCATIONAL AND HEALTH GROUPS NECESSARY

Many may think that the program just described is impractical and beyond our means. We must not let present difficulties with respect to medical and nursing personnel cloud our vision of the future. We must think now about our child health services of tomorrow. They call for better understanding on the part of all those concerned with the school medical examination. They call particularly for local medical interest and leadership. Physicians are making some progress along these lines. The Academy of Pediatrics since 1941 has advocated this approach in the school examination.[1] Its Committee on School Health recently made recommendations which might guide boards of education in the selection of well qualified physicians for school health service.[2] The American Public Health Association has recently approved a report on the Educational Qualifications of School Physicians, prepared by its Committee on Professional Education.[3] Some state and county medical societies have recently given special attention to the school health program. The American Public Health Association last year organized a School Health Section. All these developments are promising. The medical and public health workers have a contribution to make in this area of school health. Likewise, they have much to learn from the educator about the educational values in the service they render. I am convinced that joint planning will result in vastly more effective medical examinations of the school child.

EDUCATIONAL IMPLICATIONS OF THE SCHOOL LUNCH

The war has given a new impetus to nutrition education. The school lunch offers perhaps the best real-life situation for nutrition education. This experience in the school can be the basis for life-long good eating habits. Moreover, if the school lunch program is approached from the point of view of its educational value, it can be an important factor in influencing the eating habits of the whole family. As in the medical examination, we have an opportunity to use a dynamic and realistic activity to develop habits, attitudes, and appreciations that can function outside of school. Whether a single supplementary dish or a complete meal is served, pupils may be given realistic experiences in selecting, preparing, buying, and selling foods. They may figure what foods may be served at a given price, and learn which offer the greatest nutritional value. They may consider the advantages and disadvantages of purchasing different quantities,

or share in deciding whether candies, carbonated drinks, cookies, and the like, are to be placed on sale. They will learn how wartime shortages affect the planning of the school lunch, and how they may assist in the war effort by preventing waste of foods and fats. They should become increasingly aware of all the problems that must be met in running the lunchroom, especially those which have to do with the nutritional needs of pupils. And, most important, children should learn to eat good food, and that requires good cooking.

DEVELOPING HOME AND SCHOOL COÖPERATION

Nutrition education, like the school medical examination, contains opportunities from which the family as well as the child can learn. The importance of including the family in our health education program was clearly revealed in that noteworthy study made by the New York State Department of Education of the everyday behavior of elementary school children.[4] They found that, "If conflicts are to be avoided, no single groups, but all concerned, must work together to create an environment in which children can develop habits of work, play, and self-care, and have ample opportunity to practise them with satisfaction. This necessitates the participation of parents in the school program, and of teachers in the home program, as well as a community consciousness on the part of all." To work coöperatively with parents on the food and nutrition problems of their pupils, teachers need to become acquainted with parents—in their homes if possible—and also to keep them informed of what the children are learning. Whenever possible, in connection with every nutrition activity, it should be planned for the children to explain it to their parents, not only for the sake of keeping them informed, but because the experience of explaining the studies to them helps to reinforce what the child has learned, and motivates further learning on the same subject. On occasion, mothers should be invited to visit the school to see demonstrations, and hear talks by the children, summarizing what they have learned in relation to nutrition.

FOR MORE MEANINGFUL HEALTH EDUCATION

I have used the school medical examination and the school lunch merely to illustrate their educational implications. There are similar opportunities for health teaching in other phases of the child's school, home, and community life. Children's needs, both of the "felt" variety, and those which also exist but of which children may be unaware, are the richest source. The medical examination, as we have said, can reveal some. But those in daily contact with children—parents, teachers, nurses—are best able to discover these needs by closer study of our children's daily lives. Their sleep and rest, their play and work, their food and eating habits, their manifestations of fatigue and mental health, are the substance of more meaningful health education. We must make this study if we are to teach health, so that, for the individual, health becomes an instrument or means for more effective living. And, finally, to succeed, we must learn how to enter children's lives. This means we must give more attention not only to what they do, but what they say, what they listen to; what they read; and what they write. We must learn to meet them on their own terms.

Today even a casual observation reveals situations calling for more effective health education in the lives of children as well as of their parents. Most children are getting less home supervision. Home accidents, especially to young children, are on the rise.

Some, living in strange and new communities under crowded and squalid conditions, are being neglected because of the absence of mothers on war jobs. Some already are orphaned as war casualties mount. Other children are burdened prematurely with work too heavy for their strength, and thousands are laying aside their school books to take full-time jobs. Venereal disease and tuberculosis have increased in the 15–17 year old group during the war period. The following accounts,[5] written by high school students who worked during the summer months, illustrate some of the health and safety factors that enter into the work experience of young people:

"Last summer while I was working in a defense plant there were several things I did for personal safety and keeping physically fit.

"I worked in the mailing department as messenger and mail girl. I was constantly on the go, taking mail and telegrams on my route through the office and in the factory. While in the factory, the main thing I kept in mind was alertness at all times. Even though the electric trucks, which carry parts of machinery from one place to another, are in skillful hands, fatal accidents have happened.

"Comfortable shoes were a necessity on this job. The girls who wore high heels were usually very uncomfortable at the end of the day.

"Another thing I found out early in the summer, was that I couldn't sacrifice my sleep for shows and reading books. I found, if I went to sleep by 10 o'clock and got up by 6:30, I could do double my work if I had to, and there were days I did have to because of an absence.

"There was no shirking on lunches, either. In order to keep going until the end of the day I had to eat a good stable meal at lunchtime and a good-sized breakfast. My dinners were more on the light side. We had salads and fruits because of the warm weather.

"Regularities played a big part in my activities during the summer. I found I always felt fine and working seemed to be good for me mentally and physically."

Another high school student mentioned the long hours and insufficient food in her farm experience. Her account indicates the need for better supervision of the student workers on farms:

"I worked on various farms this summer for three weeks. We usually went to bed very early (8:30 or 9:00), as we had to get up at 6 A.M. We found that going to bed late made getting up early very difficult. There was not much time for recreation, except on our day off, and I think we would have enjoyed working much more if we had had more free time.

"The food was rather poor. The only two things we really had enough of were bread and milk. I don't think I saw an orange more than five or six times altogether.

"There were no extra precautions taken against accidents, other than those we ourselves had enough sense to take, and no one seemed to care whether we were sick or well."

SUMMARY

This war offers an opportunity and a challenge to health educators. The challenge is to use this opportunity to discover: (1) how and why people learn; (2) to improve our methods and technics in health education. In war or peace, too frequently some other factor, not employed in our health education technic, provides the spark.

This riddle of learning may be uncovered by studying the child's twenty-four hour day. The child's eating and sleeping, his work and play, his habits of cleanliness and rest—in short, what he thinks and what he does—all those elements which govern the child's daily living should be searched for teachable moments. Need for this kind of educational approach is greater than ever today because of part-time employment, juvenile delinquency, the lessened stability, and the greater tensions in children's lives. Health education should have its roots in the child's dynamic experiences in the school, the home, and the community.

The school medical examination and the school lunch are two real-life situations which have rich educational impli-

cations. To achieve these values in the medical examination, physician, nurse, and teacher must plan the procedure as a learning experience for the child and the parent, who should attend the examination. The school lunch, complicated as its administration is today, has important opportunities for health education. The nutrition program can link the school and community with the home. If we are to create an environment in which children can develop habits of work, play, and self-care, and have ample opportunity to practise them with satisfaction now as well as in later life, it is necessary for parents to participate in the school program, teachers in the home program, and there must be a community consciousness on the part of all.

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Public Health Degrees and Certificates Granted in the United States and Canada During the Academic Year 1943-1944*

THE Committee on Professional Education of the American Public Health Association presents a report of public health degrees and certificates granted in the academic year 1943–1944. In addition, a summary of enrollments and degrees granted in the last five years is given. With the exception of public health nursing tables, the committee has included only graduate students enrolled in courses leading to graduate degrees and certificates. The basis for the record is the number of *students who received degrees* rather than the number of degrees granted in the specified period.

Graduate Students Enrolled and Graduate Degrees Granted in Public Health Engineering and Sanitary Engineering Courses in the Academic Year 1943–1944

TABLE 1

Name of University	*Total Number of Graduate Students Registered*	*Graduate Degrees Offered*	*Number of Students Receiving Each Degree*
Agricultural & Mechanical College of Texas	6 [1]	Ph.D.	2
		M.S.	0
Cornell University	2	M.C.E.	1
Harvard University	20	Sc.D.	0
		M.S.	12
Johns Hopkins University	1	Dr.Eng.	2
		M.C.E.	1
Massachusetts Institute of Technology	2	Ph.D.	0
		Dr.P.H.	0
		Sc.D.	0
		S.M.	0
New York University	5	Dr.Eng.Sc.	0
		M.C.E.	3
Rutgers University	0	Ph.D.	0
		M.Sc.	0
Stanford University	0	Eng. in C.E.: San.	0
		M.A. in C.E.: San.	0
University of Alabama	0	M.S. in P.H.E.	0
		M.S. in S.E.	0

[1] Includes four students registered for part-time work.

* For previous reports see *A.J.P.H.*, Vol. 33, p. 1430; Vol. 32, p. 1360; Vol. 31, p. 1306; Vol. 30, p. 1456; Vol. 29, p. 1338; Vol. 28, p. 863; Vol. 27, p. 1267; Vol. 26, p. 819; Vol. 25, p. 341; Vol. 23, p. 1124.

TABLE 1 (Cont.)

Name of University	*Total Number of Graduate Students Registered*	*Graduate Degrees Offered*	*Number of Students Receiving Each Degree*
University of California	1	M.S.	1
University of Illinois	1	Ph.D. (San.Eng.)	0
		M.S. (San.Eng.)	0
University of Iowa	4[2]	Ph.D.	0
		M.S.	0
University of Michigan	14	M.P.H.	0
		M.S.P.H.E.	4
		M.S.P.H.	2
University of Minnesota	1	Ph.D. (P.H. & Prev. Med.)	0
		M.P.H.	1
		M.S.P.H.	0
		M.S.C.E. (San. Eng.)	0
		M.S.P.M. & P.H.[3]	1
University of North Carolina	7	M.S. in S.E.	1
		M.S.P.H.	4
University of Toronto	0	M.A.Sc.	0
West Virginia University	0	M.S.C.E. (San. option)	0
	64		35

[2] Includes three special Graduate Students under A.S.T.P.
[3] Master of Science in Preventive Medicine and Public Health

Classification of Graduate Engineering Degrees Granted in the Academic Year 1943–1944

TABLE 2

Degree	*Number of Students Receiving Degrees*	*Number of Schools Offering Each Degree*
Doctor of Philosophy	0	6
Doctor of Public Health	0	1
Doctor of Engineering	2	1
Doctor of Science	0	2
Doctor of Engineering Science	0	1
Master of Public Health	1	2
Master of Science in Public Health	6	3
Master of Science in Preventive Medicine and Public Health	1	1
Master of Science in Public Health Engineering	4	2
Master of Science in Sanitary Engineering	1	2
Master of Science in Civil Engineering	0	2
Master of Science	15	7
Master of Civil Engineering	5	3
Engineer in Civil Engineering	0	1
Master of Arts in Science	0	1
Master of Arts in Civil Engineering	0	1
	35	

Enrollment in Public Health Courses and Degrees and Certificates Granted in the Academic Year 1943–1944

(Exclusive of Engineering and Nursing Students)

Number of graduate students enrolled and public health degrees and certificates conferred during the academic year 1943–1944 by United States and Canadian Universities. The professional background of the students is given where known.

TABLE 3

Name of Institution	*Total Number of Graduate Students Registered*	*Physicians*	*Dentists*	*Health Educators*	*Public Health Laboratory Workers*	*Statisticians*	*Nutritionists*	*Teachers*	*Epidemiologists*	*Nurses*	*Public Health Engineers*	*Sanitarians*	*Industrial Hygienists*	*Unclassified*	*Graduate Degrees and Certificates Offered*	*Number of Students Receiving Each Degree or Certificate*
DeLamar Institute of Public Health, Columbia University	17	13	3	..	..	1	..	..	..	..	..	..	..	..	Dr.P.H. M.S.P.H.	0 15
Harvard School of Public Health	40[1]	20	2	2	..	1	11	..	..	4	..	..	.	..	Dr.P.H. M.P.H.	0 19
Johns Hopkins University	49	30	..	..	14	..	..	1	.	2	2	..	..	..	Dr.P.H. M.P.H. Sc.D. in Hyg. Sc.M. in Hyg.	3 32 3 3
Loyola University	6	1	..	..	1	..	..	2	..	..	.	2	..	..	M.S.P.H.	1
Massachusetts Institute of Technology	16	..	..	8	8	..	..	..	..	..	..	..	..	..	Dr.P.H. M.P.H. C.P.H.	3 8 5
McGill University	0	..	..	..	..	..	..	..	..	..	..	..	..	..	D.P.H.[2] D.V.P.H.[3]	0 0
State College of Washington	0	..	..	..	..	..	..	..	..	..	..	..	..	..	C.P.H.	0
University of California	20	..	..	15	1	3	..	1	..	..	..	..	..	..	Dr.P.H. M.A.	0 1
University of Kentucky	4	..	..	2	1	..	..	..	..	..	..	..	..	1	M.S.P.H.	0
University of Michigan	54	14	3	22	3	4	..	..	1	..	..	..	2	5	Dr.P.H. M.P.H. M.S.P.H.	3 30 1

[1] In addition there were 12 part-time students not working toward degrees
[2] Diploma in Public Health
[3] Diploma in Veterinary Public Health

TABLE 3 (Cont.)

Name of Institution	Total Number of Graduate Students Registered	Physicians	Dentists	Health Educators	Public Health Laboratory Workers	Statisticians	Nutritionists	Teachers	Epidemiologists	Nurses	Public Health Engineers	Sanitarians	Industrial Hygienists	Unclassified	Graduate Degrees and Certificates Offered	Number of Students Receiving Each Degree or Certificate
University of Minnesota	4	..	..	2	..	2	..	..	..	..	..	..	..	..	Ph.D. M.P.H. M.S. M.A.	0 0 0 0
University of North Carolina	54	3	..	43	3	..	..	..	..	2	..	3	..	..	Ph.D. Dr.P.H. M.P.H. M.S.P.H. C.P.H.	0 0 3 22 0
University of Pennsylvania	27	22	3	2	..	..	..	..	..	..	..	..	..	..	Ph.D. M.P.H. M.S.	0 1 0
University of Puerto Rico, School of Tropical Medicine	22	..	..	..	11	..	..	..	..	..	..	11	..	..	C.M.T.[4] M.Sc. (San.)	12 11
University of Toronto	35	19	1	..	15	..	..	..	..	..	..	..	..	..	Ph.D. D.P.H.[6] D.I.H.[5] M.A. B.Sc. (Dent.)[6]	3 18 0 2 0
Vanderbilt University	0	..	..	..	..	..	..	..	..	..	..	..	..	..	M.P.H.	0
Yale University	48	10	..	17	3	1	3	9	..	1	..	..	..	4	Ph.D. Dr.P.H. M.P.H.	0 1 7
Totals	396	132	12	113	60	12	14	13	1	9	2	16	2	10		207

[4] Certificate in Medical Technology
[5] Diploma in Industrial Hygiene
[6] In future to be known as Diploma in Public Health Dentistry

Classification of Public Health Degrees and Certificates Granted in the Academic Year 1943–1944

(Exclusive of Engineering and Nursing Degrees and Certificates)

TABLE 4

Degree or Certificate	*Number of Students Receiving Degrees or Certificates*	*Number of Schools Offering Each Degree or Certificate*
Doctor of Public Health	10	8
Doctor of Science	3	1
Doctor of Philosophy	3	5
Master of Public Health	100	9
Master of Science in Public Health	39	5
Master of Science	14	4
Master of Arts	3	3
Diploma in Public Health	18	2
Diploma in Veterinary Public Health	0	1
Diploma in Industrial Hygiene	0	1
Certificate in Public Health	5	3
Certificate in Medical Technology	12	1
Bachelor of Science (Dentistry)	0	1
Total	207	

Degrees and Certificates Granted in Public Health Nursing for the Year 1943–1944 in the 30 Universities Having Programs of Study Approved by the National Organization for Public Health Nursing

Table 5, below, indicates the number of students who received degrees or certificates for the academic year 1943–1944. These figures have been compiled by the National Organization for Public Health Nursing and are printed here with permission.

TABLE 5

	Number of Students Receiving Each Degree or Certificate			
Name of College or University	*Baccalaureate Degrees*	*Master's Degrees*	*Doctor's Degrees*	*Certificates*[1]
Catholic University of America	7	1	..	4[2]
Columbia University	52	18	1	35[2]
Duquesne University	5	..	..	7
George Peabody College for Teachers	29	4	..	39
Incarnate Word College	3	..	..	6[2]
Indiana University	9	..	..	..[2]
Loyola University	8	..	..	20
Marquette University	4	..	..	3
Medical College of Virginia	..	..	..	24[2]
New York University	53	5	..	..[2, 4]
St. John's University	6	..	..	6[2]
St. Louis University	11	..	..	..[2]
Seton Hall College	1	..	..	13[2]
Simmons College	3	..	..	46
Syracuse University	7	..	..	20
University of Buffalo	6	..	..	2
University of California, Berkeley	9	..	..	18
University of California, Los Angeles	15	..	..	13
University of Chicago	2	..	..	..[2]
University of Colorado	1	..	..	4
University of Michigan	7	1	..	25[2]
University of Minnesota	80	2	..	7[5]
University of North Carolina	2	2	..	19
University of Oregon	2	..	..	14
University of Pennsylvania	13	1	..	42[2]
University of Pittsburgh	4	..	..	4[2]
University of Washington, Seattle	6	2	..	23
Vanderbilt University	1	..	..	13[2]
Wayne University	4	2	..	17
Western Reserve University	11	5	..	48
Totals	361	43	1	472

(Notes on page 1269)

[1] In all 30 universities the year's program of study in public health nursing approved by the N.O.P.H.N. is the major in a degree program. In 18 of the 30, a certificate is granted on completion of this major.

[2] These 12 universities do not grant certificates but the program of study in public health nursing which they offer is at least the equivalent of the certificate program.

[3] Beginning with the academic year 1944–45, certificates will no longer be granted in these two universities.

[4] Unable to estimate, since students do not take the program of study in one block.

[5] Only students who already have a B.S. degree are eligible for a certificate in public health nursing upon completion of the program of study.

Enrollments in Public Health Courses and Degrees and Certificates Granted in All Schools Covered by This Report in the Academic Years 1940–1944

TABLE 6

	Enrollment [1]		*Degrees and Certificates Granted*			
	Engineers	*Public Health (Other than Engineers and Nurses)*	*Engineers*	*Public Health (Other than Engineers and Nurses)*	*Nurses*	*Total*
1939–1940	131	550	66	331	976	1,373
1940–1941	130	645	59	332	949	1,340
1941–1942	163	466	89	269	719	1,077
1942–1943	64	323	24	159	874	1,057
1943–1944	64	396	35	207	877	1,119
Totals	552	2,380	273	1,298	4,395	5,966

[1] Data covering enrollment in courses for public health nurses are not available after 1941 and therefore have not been included in this summary.

Summary of Degrees and Certificates Granted During the 5 Year Period 1940–1944

The following table itemizes the public health degrees and certificates granted by the schools covered in this report for the academic years 1940–1944.

TABLE 7

	1939–1940	*1940–1941*	*1941–1942*	*1942–1943*	*1943–1944*	*Total*
Doctor of Public Health	19	20	12	7	10	68
Doctor of Science	8	7	17	1	3	36
Doctor of Philosophy	3	2	9	2	3	19
Doctor of Engineering	0	0	2	1	2	5
Doctor of Public Health Nursing	0	0	0	0	1	1
Master of Public Health	142	156	151	83	101	633
Master of Science in Public Health	74	90	73	19	45	301
Master of Science in Public Health Engineering	0	0	2	1	4	7
Master of Science in Sanitary Engineering	0	2	4	2	1	9
Master of Science in Civil Engineering	0	0	2	0	0	2
Master of Science in Engineering	0	0	1	0	0	1
Master of Science	79	47	28	13	29	196
Master of Civil Engineering	12	11	6	3	5	37
Master of Science in Preventive Medicine and Public Health	0	0	0	0	1	1
Master of Arts	0	1	1	0	3	5
Master of Arts in Science	0	0	3	1	0	4
Master's Degree (Nurses)	47	42	22	43	43	197
Diploma in Public Health	24	29	19	20	18	110
Diploma in Veterinary Public Health	0	5	0	0	0	5
Baccalaureate Degree (Nurses)	417	339	215	388	361	1,720
Certificate in Public Health	33	18	4	14	5	74
Certificate in Public Health Nursing	512	568	482	443	472	2,477
Certificate in Medical Technology	0	0	0	14	12	26
Engineer in Civil Engineering	3	3	0	2	0	8
Engineering Science and Management Defense Training Certificate	0	0	24	0	0	24
Totals	1,373	1,340	1,077	1,057	1,119	5,966

W. P. SHEPARD, M.D., *Chairman*

Seventy-five Years of Public Health in Massachusetts

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MILITARY historians tell us that the battle of Chickamauga just happened. This engagement, one of the bloodiest of the Civil War, was fought because the commanders of the northern and southern armies knew of the existence of springs of pure water there, but neither was aware of the nearness nor the intent of his adversary. In many ways sanitary considerations markedly altered the outcome of the war, and a tragic proportion of soldier deaths was due to diseases and infected wounds. The realization of the pressing need for improved sanitary services carried over from military experience to civil life.

Within five years of the close of the War Between the States, the Massachusetts Legislature had passed an act to establish a State Board of Health—the first in America. The act of 1869 directs that:

> The board shall take cognizance of the interests of health and life among the citizens of this Commonwealth. They shall make sanitary investigations and inquiries in respect to the people, the causes of disease, and especially of epidemics, and the sources of mortality and the effects of localities, employments, conditions and circumstances on the public health; and they shall gather such information in respect to those matters as they may deem proper, for diffusion among the people.

Considering the lack of scientific knowledge of that day, these broad authorizations have about them a surprisingly modern ring. Pasteur had disproved the older theories of spontaneous generation but his bacteriological discoveries still were concerned with diseases of wine and silkworms; they had yet to reach the realm of human health. Scientific thought was still cluttered with Pettenkofer's beliefs linking emanations from moist soil and tuberculosis. It was still the era of bad smells—"If anything is settled as to the causes of disease, it is the influence of decomposing organic matter in giving rise to . . . typhoid fever . . ." wrote the Secretary of the new Massachusetts Board.

The first annual report of this pioneering Board is so realistic that one can almost attend the inaugural meeting. The Governor had appointed the membership promptly. The senior appointee, Dr. Henry Ingersoll Bowditch, calls the members together. They are meeting in a committee room, for no quarters are provided. Fully conscious of the import of this unprecedented occasion and of the solemnity of the moment, Dr. Bowditch arises to read his charges to them:

> The law requires us to diffuse among our people any already established laws of public health, and also whatever we may hereafter discover on that subject. . . . How shall we diffuse this knowledge? . . . (a) By lectures from our Secretary or from members of the Board on various special subjects connected with public hygiene—such as ventilating, and

building, and location of houses; on various well-known diseases capable of partial or entire prevention on knowledge of causes being given. . . . (c) By the publication in a compact form and the wide circulation of the pith of our general knowledge on public hygiene. . . . (d) By our annual reports to the legislature, which, I trust, will always be models of brevity and of compact learning.

A week after this auspicious beginning, the Board came together again to adopt by-laws. At this meeting the following subjects were singled out for special investigation by the members: prevailing modes of slaughtering, sale of poisons, comparison of the sickness and mortality in different kinds of houses occupied by the poor. In addition, it was then and there decided to address a circular letter to the local boards of health about their powers and duties, and further to collect and publish the number and prevailing causes of deaths in the most populous cities and towns.

A PIONEERING DECADE

Throughout the first ten years of its existence, the members of the Massachusetts Board of Health carried on ingenious investigations concerning the nature of the sanitary problems confronting the state and the means which might be effected to remedy them. Merely the record of the activities of these inquiring minds is an inspiration to us in these settled times. One of the first subjects which attracted the attention of the Board was the method employed in slaughtering and the disposal of animal refuse in the nearby town of Brighton. Fifty-odd small companies carried on slaughtering, under sanitary conditions which beggared the descriptive powers of the not inarticulate investigators. The Board sought courageously to compel the erection of sanitary abattoirs which might mitigate the worst of the unspeakable nuisances. That the job needed doing, there was no question, but the members struggled with their consciences because they could find no evidence in the death records of Brighton to support their beliefs that the dreadful smells coming from the slaughter houses must be inimical to health.

Among their early activities, the Board subsidized the investigation of the sanitary condition of inland waters by the best qualified engineers of the day. Their reasonable interest in the pollution of ponds and streams used for potable water supplies was admixed with a curious concern about mill-dams and other obstructions which raised the water level of the surrounding soil, causing it to give forth noxious vapors and vague but insalubrious emanations.

As a practical means of ascertaining the state of the public health, the Board circularized the cities and towns asking that a physician be designated to act as a correspondent for the community. From the returns, conscientiously made, the Secretary ascertained not only the existence and nature of any epidemics, which the Board proposed to take steps to suppress, but the Board learned from the correspondents as well the prevailing opinions about the nature and causes of the diseases which plagued their communities. Though their democratic acceptance of majority opinion as medical gospel amuses us in these smug days of scientific research, one by-product of this correspondence was the beginning of a productive coöperation between the state and local health authorities.

This pioneering period was dominated throughout by Dr. Henry Ingersoll Bowditch, long an authority on consumption. In his sixtieth year and firm in the belief that, where ground is damp, consumption develops, he had at the same time the vision and the breadth of understanding to mold and direct all the variety of activities which then made up public health practice. After ten years his productive work was

ended by the unhappy amalgamation of health with lunacy and charity. In explaining his resignation in protest against this impractical act, Dr. Bowditch wrote:

> In 1878 came mutterings of political disaster to the ruling powers, and forebodings of what the renowned General Butler would do with the numerous "commissions" (that of health among them) that were "spending wastefully the people's money." Accordingly, to attack this redoubtable General upon his political "flank," the legislature, under suggestions from Governor Talbot, merged the three departments of Health, Lunacy, and Charity, a Cerebrus, in fact, in its grotesqueness of head. Three commissions, all different in ideas and modes of action, jumbled into one heterogeneous mass, simply because the ruling party feared the advent of power of a political adventurer! . . . At one time, for three or four successive meetings, nothing was done about sanitation, the time being occupied in discussions on lunacy and charity, on both of which subjects, so far as they had relation to the State, neither I nor my comrades on the old board knew anything.

Although public health languished when it was linked with such unrelated state activities, the investigation of streams and ponds continued and some sanitary progress was made. One compensation for the loss of this vigorous-minded pioneer was the emergence of a man of like caliber, Dr. Henry Pickering Walcott, who served first as health officer and later as chairman of the health subcommittee of the triple-functioned board. When the unfortunate union was ended and a new and greatly revitalized board appointed, Dr. Walcott was made its chairman, a position which he held for almost thirty years, until the Board was reorganized as a department.

THE "GOLDEN AGE" OF PUBLIC HEALTH

The phenomenal scientific advances following in the wake of the discoveries of Pasteur and Koch came to full-flowering in Massachusetts under Walcott's forceful leadership. Bowditch had pointed the way; Walcott built the solid foundation for effective public hygiene. He rallied about him young men who were to make Massachusetts the proving ground of health administration. Early in this productive period, an experiment station at Lawrence was established, and from it has come much of the world's knowledge of scientific water and sewage treatment. A laboratory was set up in co-operation with Harvard University for the production of antitoxins and vaccines which has supplied the state to this day with the means of saving lives and preventing epidemic diseases. Epidemiological procedures were inaugurated which are still used in controlling outbreaks of disease.

To implement the state-wide control of communicable diseases, regional inspectors of health were appointed to act as advisers of local boards of health, the first example of this extension of state service in our country. During this golden era many young men began their scientific careers in Massachusetts—a few to stay on to lead the several health services of the State Board, many more to go out to carry the torch to the nation. On the staff of the Board during this period will be found the illustrious names of Theobald Smith, Sedgwick, Rosenau, Goodnough, Hazen, Fuller, Stearns.

New times call for new methods. The varied administrative burden had become too great and the responsibility too heavy to be carried on the anonymous shoulders of a board, however capable the members might be. The needs of the day called for the creation of a responsible commissionership and, by the law of 1914, the old board was dissolved and a health department created to supersede it. Full of honors, Dr. Walcott retired.

DRAFT REVELATIONS CALL FOR NEW HEALTH SERVICES

Once again, in a time of crisis,

vigorous leadership was forthcoming. A surgeon of the U. S. Public Health Service, Allan J. McLaughlin, was assigned to be commissioner of the newly reorganized department. The council appointed to advise him was composed of competent and disinterested medical and lay members. The division heads were men of proved administrative ability. Providentially, there was thus brought together a working team competent to deal with the health needs startlingly revealed by the first World War draft. Under this wholesome influence, the Massachusetts Department of Health again pointed the way during, and following, the tumultuous days of the first World War.

After four productive years, Dr. McLaughlin was recalled by the Public Health Service to undertake a war assignment and Dr. Eugene R. Kelley, who had proved his mettle as Director of the Division of Communicable Diseases, was appointed to succeed him. After his untimely death, he was in turn succeeded by his deputy, the brilliant Dr. George H. Bigelow. Under these three dynamic men the department took on new functions and turned its face in new directions.

In addition to the classic interest in environmental sanitation and communicable disease control, new undertakings in personal and community hygiene were introduced by these men. The departmental program was broadened by the assumption of services for the prevention and treatment of tuberculosis, the addition of new specialties in maternal and child health, public health nursing, nutrition, and school and adult hygiene. During part of his working hours, the sanitary officer was induced to shed his badge of law enforcement in order to adopt the gentler rôle of guide and mentor. All the adventure of pioneering in public health was not yet gone.

This was the period of national economic ups and downs. It included a sharp but cruel post-war depression, the "permament prosperity" of the "twenties" and the debacle of the early "thirties" which was to give us social security, with its stimulus for adequate national health administration. To the states this meant federal grants for greatly enhanced programs in maternal and child health, crippled children, venereal diseases, and tuberculosis.

SELECTIVE SERVICE PROVIDES ANOTHER SAMPLING OF AMERICA'S HEALTH

The exigencies of a nation geared to war conditions have imposed upon state health departments generally many new and specific obligations. Among its other programs the Massachusetts agency is administering special case finding projects in tuberculosis, state-wide diagnostic and social services for cancer and other chronic conditions, applied nutritional and dental hygiene programs—services which may be far-reaching in their ultimate social consequences. Typical of these new activities is the Emergency Maternity and Infant Care Program which furnishes obstetric and pediatric services free for the wives of soldiers and sailors within certain pay grades, a medical care project under the supervision of the department.

Despite the complications which new activities inevitably entail, we find the Massachusetts Department seeking by the expansion and development of its district offices, and by means of demonstration, encouragement and supervision to strengthen rural and suburban health organization to the point where local boards themselves may meet their own obligations.

A Sponsored Epidemic of Mumps in a Private School

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AMONG the so-called contagious diseases of childhood, mumps has one quality peculiar to itself—that of being less severe in complications before puberty than after this period. Although occasional cases of mumps encephalitis are encountered among children, other complications such as orchitis, ovaritis, and pancreatitis are rarely seen under 12 years of age.

From a public health and especially from a military standpoint, the problem of preventing mumps is of great importance, for, next to venereal diseases, mumps is reported as the most disabling of all acute infections among army recruits.[1] During the first World War, nearly 4,000,000 man days were lost from duty in the U. S. Army because of this disease.[2]

It might seem reasonable, therefore, in view of these facts and figures, to attempt to expose children to cases of active mumps in order that they might develop an immunity prior to the onset of adolescence.

The present paper reports the results of such an attempt in a private school of 161 children during the mumps epidemic in New York City in the early months of 1942. This school * had for the twelve previous years been remarkably free from mumps. On a number of occasions the spread had been prevented either by isolation of exposed children or by partial quarantining of the class, viz.: treating the class as an isolated unit in school, and isolation from other schoolmates before and after school hours. As a result of these procedures only a very few children in the graduating classes gave a history of having had mumps, whereas many cases developed among graduates while attending high school or college.

On January 22, 1942, one of the children (E.S.) developed mumps, exposing not only those in her own class (Group VIII)* but also her brother and two other children from Group XI who were visiting at her home. Four days later (January 26, 1942) another child (H.M.) in Group VIII also developed mumps, not only reëxposing the class but exposing a brother in Group IX, a friend in Group IX, and another brother in Group XI.

Under usual routine methods Group VIII would have been kept as a unit in the school, coming late and leaving early, and remaining isolated from other children in the school. The other 6 known exposed children would have been withheld from school until the period of incubation was over.

However, the following letter was sent immediately to all parents:

* City and County School, New York City

* The children at the City and Country School are grouped by ages (i.e. all 8 year olds are in Group VIII, etc.).

Dear Parents:

At the present moment there are a number of cases of mumps in the school. Several of the children have brothers or sisters in other classes not exposed.

With all other contagious diseases our policy is to exclude these children exposed at home to avoid further possibility of contagion.

However, since mumps is an extremely mild disease and almost devoid of any complications before puberty, and may be at times very painful and result in serious complications after puberty, I feel it would be inadvisable to do anything to avoid exposure to this disease, unless there is a particular reason.

We would like to know if you and your child's physician are in agreement.

This letter brought forth the unanimous approval of the parents, with only one questioning note from a pediatrician who felt that no child should ever knowingly be exposed to a disease, but consenting to the plan if most of the parents agreed.

Accordingly, no restrictions were placed on exposed children, with the exception of the classes of children aged 3, 4, and 5 years. Within 3 weeks, 14 cases of mumps had developed in 5 different classes, 12 of which were directly traced to the two children with the original infections.

The spread continued and within a period of 3 months 62 children (54.4 per cent) from a total of 114 susceptibles in the upper 8 classes developed the disease. Four children in the lower 3 classes contracted the disease from their brothers or sisters. These children were excluded from their classes during the incubation period and no further cases resulted. The distribution of infection in the various classes is shown in Table 1.

Of the 66 children who developed the disease, 6 developed complications. The first two generations of the infection were mild and all 16 cases recovered without complication.

However, in the third generation of 18 cases there was 1 case of mumps encephalitis, and in the fourth generation of 19 cases there were 3 cases of mumps encephalitis. Two of the children who developed encephalitis received spinal taps as corroborative evidence, although all four suffered severe headaches, vomiting, and neck rigidity at the end of the first week. The parents of the children developing mumps encephalitis were reassured that there would be no aftereffects.*

Two other complications which developed were a moderately severe orchitis in a boy, aged 12, and a possible pancreatitis in a child of 8 years.

When the epidemic subsided in April, 1942, a questionnaire was sent out requesting complete information on the children who contracted the disease, with an added question as to whether any other members of the family contracted the disease. The final analysis revealed that beside one teacher, who was incapacitated with the disease for 2 weeks, 10 parents suffered from the infection, a possibility which was completely overlooked when the plan was suggested.

It is doubtful if any further epidemics will be sponsored by the school.

TABLE 1

Group	*Susceptible Children*	*Developed Mumps*
III	12	2 *
IV	11	1 *
V	11	1 *
VI	14	7
VII	17	10
VIII	16	8
IX	15	9
X	11	6
XI	14	9
XII	15	9
XIII	12	4
Total	148	66

* These 4 cases were exposed to brothers and sisters in higher classes. They were withheld from school during the incubation period, thus preventing further spread in their classes.

* This opinion was corroborated by consultation with Dr. Josephine Neal of the New York City Department of Health.

SUMMARY

1. With the consent of the parents, a mumps epidemic which could have been limited was sponsored in a private school of 161 children.

2. Out of 114 susceptible children exposed, 62 contracted the disease within a period of 3 months.

3. Of the 62 children developing mumps, there were 6 who developed complications. There were 4 cases of mumps encephalitis, 1 case of orchitis, and 1 with a probable mild pancreatitis.

4. One teacher and 10 parents also developed mumps.

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Salmonella Types Isolated in Georgia in 1941-1943, Including a New Type—Salmonella georgia

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AN increasing number of *Salmonella* strains is being isolated in the laboratories of the Georgia Department of Public Health. In the 3 year period, 1938–1940, our laboratories made only 47 isolations of *Salmonella* organisms from blood and stool cultures. During the succeeding 3 years, 1941–1943, 130 isolations were made. This increase is probably due to more efficient methods of isolation and identification rather than to an increase in incidence of the infections.

Bismuth sulfite agar and Bacto- SS agar for plating, tetrathionate broth for enrichment, and Kligler's iron agar for colony differentiation, have proved a satisfactory combination of media for isolating the organisms. A fairly adequate assortment of group and specific antisera further facilitates identification. However, for the past 3 years most of our strains have been either identified or confirmed by the New York Salmonella Center, Beth Israel Hospital, New York, N. Y. During this time 20 different types have been encountered, including a new type.

TABLE 1

Salmonella Types Isolated in Georgia During 1941–1943

Group	*Type*	*1941*	*1942*	*1943*	*Total No. Isolations*	*Total No. Individuals*
A	*S. paratyphi A*	1	1	4	6	4
B	*S. paratyphi B*	5	8	20	33	22
	S. typhimurium	0	14	10	24	18
	S. derby	0	2	1	3	3
	S. bredency	0	1	0	1	1
C	*S. choleraesuis*	2	6	5	13	13
	S. oranienburg	1	3	6	10	7
	S. barvilly	1	0	0	1	1
	S. montevideo	1	3	2	6	6
	S. tennessee	0	0	2	2	1
	S. georgia	0	0	1	1	1
	S. newport	1	1	0	2	2
	S. muenchen	0	0	3	3	1
	S. litchfield	0	1	0	1	1
D	*S. sendai*	1	0	0	1	1
	S. panama	1	0	9	10	3
E	*S. give*	0	1	0	1	1
	S. anatum	0	2	5	7	7
	S. meleagridis	0	1	1	2	2
Other	*S. poona*	0	0	3	3	2
Totals		14	44	72	130	97

Some types were isolated only once while others occurred more frequently. *Salmonella bredeney, S. bareilly, S. georgia, S. litchfield, S. sendai,* and *S. give* were each represented by a single isolation from only 1 patient. *S. tennessee* was isolated twice from 1 patient, and *S. muenchen* 3 times from another. *S. paratyphi B, S. typhimurium,* and *S. choleraesuis* accounted for 53.8 per cent of all isolations. A list of the types found in this state during 1941–1943 is presented in Table 1.

S. paratyphi B and *S. choleraesuis* were found in 59 per cent of the blood cultures. One strain of *S. choleraesuis* was isolated from pus from the knee. A combination of *S. typhi* and *S. montevideo* occurred in a 3 year old child. *S. typhi* was recovered from the first stool culture. From a second specimen received 5 days later, both *S. typhi* and *S. monevideo* were isolated. Table 2 shows the distribution of types in blood and stool cultures.

There have been very few instances in which relationship between the cases could be established. One outbreak of food infection due to *S. typhimurium* occurred in an institution for boys. There were about 40 patients who had symptoms of fever, vomiting, and diarrhea. Unfortunately, the peak of the epidemic had passed before the laboratory was called upon for assistance. Stool specimens were received from only 6 patients and *S. typhimurium* was isolated from 4. Four *S. paratyphi B* infections occurred in the staff personnel of a small hospital. The first case, a nurse, was proved by a positive blood culture. About 2 months later 2 other nurses became ill with nausea, vomiting, diarrhea, and temperature elevation to 103° F. No blood or stool cultures were made at the time. Later, the chief physician was taken ill with about the same symptoms, and a blood culture was positive. Epidemiological investigation indicated that the only source of food common to the physician and nurses was milk and cream. A milker in the dairy that supplied milk to the hospital was found to

TABLE 2

Salmonella Types Isolated from Blood and Stool Cultures

Group	*Type*	*Blood*	*Stool*	*Total No. Isolations*
A	*S. paratyphi A*	6	0	6
B	*S. paratyphi B*	17	16	33
	S. typhimurium	1	23	24
	S. derby	0	3	3
	S. bredeney	1	0	1
C	*S. choleraesuis*	9 *	4	13
	S. oranienburg	5	5	10
	S. bareilly	0	1	1
	S. montevideo	1	5	6
	S. tennessee	1	1	2
	S. georgia	0	1	1
	S. newport	0	2	2
	S. muenchen	0	3	3
	S. litchfield	0	1	1
D	*S. sendai*	1	0	1
	S. panama	2	8	10
E	*S. give*	0	1	1
	S. anatum	0	7	7
	S. meleagridis	0	2	2
Other	*S. poona*	0	3	3
Totals		44	86	130

* One isolation was made from pus from knee.

be a carrier of *S. paratyphi B*. Two cases due to *S. panama* occurred simultaneously in adjoining homes. There were 2 cases due to *S. anatum* in 1 home, the mother and daughter being ill at the same time.

S. typhimurium, S. derby, S. bareilly, S. oranienburg, S. litchfield, S. give and *S. anatum* were isolated from feces in routine food handler examinations.

The new type, designated as *S. georgia*, was isolated from the feces culture of a 16 year old white boy during a routine examination of food handlers. The boy apparently was a healthy carrier. The organism was identified by the New York Salmonella Center and confirmed by Dr. P. R. Edwards of the National Salmonella Center, Lexington, Ky. It has the antigenic formula VI, VII: b–e,n,z_{15}.

SUMMARY

During the 3 year period, 1941–1943, 20 types of *Salmonella* organisms were isolated from blood and stool specimens. Of 130 isolations, *S. paratyphi B, S. typhimurium*, and *S. choleraesuis* accounted for 53.8 per cent. *S. paratyphi B* and *S. choleraesuis* were found in 59 per cent of the 44 positive blood cultures.

A new type, isolated from the stool of a normal food handler, has the antigenic formula VI, VII: b–e,n,z_{15}, and has been designated as *S. georgia*.

Isolation of Shigella paradysenteriae Type P288 of Boyd from a Case of Acute Diarrhea

JANIE F. MORRIS, ALICE BRIM, AND T. F. SELLERS, M.D., F.A.P.H.A.

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DURING June, 1944, several cases of acute diarrhea occurred among trainees at a naval training school for WAVES located in Georgia. All patients had temperatures of 102–103° F., profuse watery stools, abdominal cramps and prostration. The duration of illness was 3 to 4 days. Fecal specimens from only 2 patients were submitted for culturing. From 1 of these was isolated an organism identified as *Shigella paradysenteriae* P288,* a type described by Boyd [1, 2] as occurring in India. This isolation, to our knowledge, is the first to be reported in this country.

The incitants of bacillary dysentery comprise a group of Gram-negative bacilli having diverse characters and a study of both biochemical and serological properties is essential to their identification. Boyd [1–4] has made valuable contributions to the study of dysentery bacilli and has shown the Flexner group to be of complex antigenic structure. An analysis by Boyd [2] of the antigenic structure of 4,856 strains of

* Identification was confirmed by Dr. A. J. Weil, Lederle Laboratories, Inc., Pearl River, N. Y., and by Dr. K. M. Wheeler, Connecticut State Department of Health Laboratories, Hartford, Conn.

" mannitol-fermenting bacilli (except late fermenters of lactose and sucrose) isolated in military laboratories in India in the years 1932–1935 " revealed a number of strains which gave the biochemical reactions of the Flexner species but which were antigenically different. This atypical group was subdivided into several distinct types, one of which was designated as P288. According to Boyd [2] and to Wheeler [5] P288 has a specific antigen and very little if any Flexner group antigen. Boyd [4] states that " P288 . . . is very definitely a true dysentery bacillus."

P288 cannot be distinguished from other members of the *Shigella paradysenteriae* group except by serological reactions. The organism isolated by us fermented dextrose, mannite, and arabinose and gave negative reactions with lactose, sucrose, salicin, adonitol, dulcitol, xylose, and sorbitol. Trehalose and maltose showed delayed reactions. Indole was not produced. The organism was agglutinated by P288 antiserum only.

Of the 4,856 strains studied by Boyd,[2] 64, or 1.3 per cent, were type P288. In 1936 Wilson [6] reported a small outbreak of dysentery due to P288 which occurred in the Indian platoon of a British regiment in Burma. Ten cases occurred, and P288 was isolated from all 10. Although, so far as we know, the case described here is the first to be reported in this country, a critical study of the antigenic structure of so-called " inagglutinable Flexner " strains may show this type of Shigella to be more prevalent than has heretofore been suspected.

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LAURELS FOR MASSACHUSETTS

THE sixth of December is a day of celebration for public health workers in Boston; and it is a day of significance for the movement throughout the United States. The Massachusetts State Department of Health on that date commemorates the 75th anniversary of the department, and the 50th anniversary of the establishment of its State Antitoxin Laboratories.[1]

Only New York City can perhaps compare with the State of Massachusetts in the significance of its historical contributions to the cause of public health on our continent. This "Commonwealth" established in 1869 not only the first of our state health departments in point of time but—for many decades—the first in point of quality. Chapin's survey of 1915 scored Massachusetts 745 and New York (the next state in rank) 730. Massachusetts still stands among the top health departments of the United States.

The establishment of the Lawrence Experiment Station in 1886 laid the basis for all modern practice in sewage disposal. The Annual Report of the Department of Health for 1892 presents studies which are still classics in the field of epidemiology. The State Antitoxin Laboratory has been a model of service and a center of research since 1894. The names of Theobald Smith, of William T. Sedgwick, of Hiram F. Mills and G. W. Fuller and Allen Hazen and E. O. Jordan shed luster on the early history of this unique organization; and, in recent years, Massachusetts has continued to pioneer in its comprehensive programs for the control of tuberculosis and cancer.

We congratulate the public health profession of Massachusetts on its glorious past and we look to it for continued leadership in the future.

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PSYCHIATRIC SERVICE FOR THE RETURNED VETERAN

AT the meeting of the American Psychiatric Association last spring, it was announced that the objectionable label "psychoneurotic" had been dropped from the records of selectees rejected for nervous and mental conditions and replaced by the phrase "not suited for military service." This is a sensible designation, much more accurately describing the facts, since many individuals unfitted for the intense emotional hazards of modern warfare will prove successful, and often superior, members of a civilian community.

The fundamental fact remains, however that, according to Colonel L. G. Rowntree of Selective Service, between thirty and forty per cent of rejections and discharges have been related to mental and nervous status and that the total number of persons of this type in the rejected and discharged groups combined will exceed two million.

So far as discharges are concerned, the Veteran's Bureau will no doubt provide institutional care for those in need of such treatment. The great majority of both rejected and discharged groups will, however, need outpatient care alone, or outpatient care subsequent to hospitalization. The urgent question before us today is how and where this outpatient care shall be provided; and there are three major alternatives. Shall mental hygiene clinic provision be made as a special service for discharged soldiers under the direction of Veteran's Bureau hospitals? Shall it be made through community mental hygiene clinics serving all persons in need of this special type of care? Or shall it be developed as an expansion of the outpatient service of general hospitals?

It seems reasonably clear that the first of these three alternatives is least desirable. The development of new outpatient clinics under the Veteran's Bureau would involve serious duplication in a field where concentration of effort is essential. Furthermore, the treatment of the discharged soldier in such clinics would tend to label him as a special type of military psychoneurotic whereas he is essentially the same kind of individual as the rejectee for mental and emotional causes and as the ordinary civilian with similar difficulties. The strain which has accentuated his problem is different; but the task of adjustment to civilian life is the same.

On the question whether we should build increased mental hygiene service on independent mental hygiene clinics or on the outpatient services of general hospitals, Dr. J. M. Cunningham of the Connecticut State Department of Health has presented a challenging argument.[1] He points out that in addition to the men who have received various psychiatric labels at the hands of induction boards or service doctors, there is another large group in which emotional and physical defects are closely interrelated in what are now classed as psychosomatic disorders. Dr. Cunningham believes that the "integration of psychiatry and medicine may be expected to be the next great development in the application of psychiatric knowledge." Therefore, all "psychiatric service for adults should be organized as a part of the general hospital and it should be integrated with the other medical services for both in and out patients." He suggests that there should be appropriations to subsidize psychiatric diagnosis and treatment in the general hospital for both inpatient and outpatient work; that this service should be on a full-time paid basis utilizing psychiatrists, psychologists, and psychiatric social workers; and that such services should provide for veterans along with all other adult members of the community.

In states where a well organized state department of mental hygiene has been developed, the provision of community mental hygiene clinics might be conceived as a logical function of such an organization; but it should be remembered that the problem presented is not that which the ordinary state mental institution is geared to meet. The psychoneurotic individual is only rarely an incipient psychotic patient but quite a different type of person; and one who will more readily turn to a community hospital than to a clinic operated by an institution for the insane. The problem is a complex one and will not be susceptible of any general uniform solution. There is, in any case, much force in Dr. Cunningham's emphasis on the importance of psychosomatic medicine; and the plan he proposes embodies the type of decentralized and generalized service which is coming to the forefront in public health practice. Possibly clinics directed by mental hygiene departments or health departments could be organized as joint enterprises in coöperation with general hospitals.

The problem deserves the serious consideration of mental hygienists and hospital executives and of health officers—as representing general community interests in health planning.

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THE NO-MAN'S LAND OF THE SMALL INDUSTRY

ONE of the most interesting sessions of our last annual meeting dealt with the admirable program for health education of industrial workers developed in the Fort Greene area of Brooklyn. Such a program, however, depends for its efficacy upon the availability of the actual health services for which health education prepares the way. There is little gain in teaching the worker about the control of tuberculosis if the air of his shop is laden with silica dust; or in emphasizing the value of health examinations and prompt treatment of disease if doctors to make these examinations and supply this treatment are not at his disposal.

We have no comprehensive knowledge of recent developments in the field of industrial health service. Just before our entry into the war, the Council on Industrial Health of the A.M.A. presented an illuminating study of the situation at that time.[1] This study cited results which are tabulated below:

Size of Plant	*Number of Plants*	*Number of Employees*
Less than 100 employees	143,615	2,260,956
100–500 employees	13,656	2,885,670
500–1,000 employees	1,660	1,333,323
Over 1,000 employees	978	2,262,282

A survey of a sample group of plants made by the Council showed that in the group of very small plants (less than 100 employees) none had a full-time physician and only 3 per cent had an industrial nurse. Of the small plants (100–500 employees) only 18 per cent had full-time medical service and only 19 per cent full-time nursing service. In the medium-sized plants (500–1,000 employees) 21 per cent had full-time medical service and 52 per cent full-time nursing service. In the large plants (over 1,000 employees) 47 per cent had full-time medical service and 85 per cent full-time nursing service. If we assume that the sample

studied was representative, 79 per cent of all the industrial workers in the country had no full-time industrial medical service.

Bloomfield and associates, in a survey conducted by the U. S. Public Health Service,[2] reported that in establishments with over 100 employees, 20.3 per cent of the workers had the services of a full-time plant physician and 27.6 per cent those of a part-time plant physician; while in establishments with less than 100 employees, the comparable figures were only 0.4 per cent and 5.6 per cent, respectively. A report of the National Association of Manufacturers[3] showed that in establishments with less than 250 employees only 13 per cent of the plants studied even had a physician in the plant at regular scheduled hours.

A more recent study of 565 industrial establishments in New York City[4] gave even more discouraging figures. Of 11 plants with over 250 employees (total employment, 12,373), 45 per cent had full-time medical service and 64 per cent had full-time nursing service; but of 554 plants with less than 250 employees (total employment, 12,470), not one had a full-time physician and "practically none had any nursing service whatsoever."

We talk optimistically about progress in industrial medicine; but the fact is that about half our total working population is in small plants which have practically no effective service of this kind. Even of the workers in medium and large plants only about half have full-time medical service, so that not over a quarter of the total industrial population is adequately provided for.

We may reasonably hope that the larger plants have learned during the past three years the values of industrial health and will provide such service for themselves after the war. But, what can be done about the small plants?

The only possible way in which such plants can be supplied with the constructive health program which they need is by common services for groups of five, ten, or twenty such establishments. To expect that small industries will voluntarily combine on their own initiative to obtain such services is fantastically wishful thinking. There must be leadership. From what source can this leadership come?

In communities where there is a medical school or a school of public health, the initiative might come from that source (as has been demonstrated on a small scale in one particular instance). In most areas, the health department is the only really practical source of leadership.

The *Journal of the A.M.A.*, in discussing the report of the Council on Industrial Health, cited above, said, "When it is found possible to extend qualified preventive medical assistance to such concerns (small plants), through the joint agencies of private practice and public health administration . . . an achievement will have been recorded in which all elements in the medical profession can take lasting satisfaction."

Is there not here an outstanding opportunity for the local health officer who desires to render constructive service to his community?

In undertaking such a project, the first step would be the formation of a local committee including representatives of local industries and of the local medical society to study the problem. Such a study would, first of all, reveal the need for expert industrial hygiene counselling with regard to shop sanitation, control of industrial hazards, and the development of a comprehensive health program in small plants—more detailed and intensive than can be supplied by the state department of health. Local industry would quite certainly support appropriations for a trained industrial hygienist on the health department staff

to provide such guidance. Next, the need would emerge for preëmployment and periodic health examinations and for industrial nursing service. A plan for providing these services could next be formulated, utilizing private practitioners of medicine and local visiting nurse organizations so far as possible but under the unified direction and supervision of the health department—for without direction and supervision no program can function effectively. Finally, the problem of remedial care would have to be faced—to be provided by the local medical profession under some plan of prepayment which would insure adequate service to the patient and adequate remuneration for the physician.

How far such a program would go in a given community would depend on circumstances and on psychology. We feel sure, however, that the health officer who will take the first step of a survey of local conditions (in coöperation with industry and with the medical profession) will open the door to one of the most vital services any health administrator can render—the bringing of the benefits of modern industrial health service to that half of our employed population which works in the No-Man's Land of the small plant.

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THE PLACE OF PREVENTIVE MEDICINE IN THE MEDICAL CURRICULUM

THE Conference of Professors of Preventive Medicine, held at the time of our New York meeting, staged an interesting discussion on the rôle of courses in preventive medicine in the education of the physician. It was generally agreed that "Public Health" is a field for postgraduate training but that "Preventive Medicine" is an essential part of the training of the medical student. An important point was raised, however, by speakers who contended that this subject might well be taught as a part of other courses and not as a separate item in the curriculum.

Clearly this is a counsel of perfection. The day may come when personal hygiene is taught as a part of physiology and when the clinical branches of medicine are developed not only from a *preventive* aspect but also with a view to that *constructive* medicine which visualizes the ideal of health in a positive sense as the goal of the physician. Were such ideals generally realized (as they are today in some pediatric faculties) no separate department of "preventive medicine" might be needed. That day, however, is far in the future.

Even in such a Utopian situation, there is one basic element which it would be essential to add to the curriculum. Nowhere (except in "preventive medicine" or "public health") does the medical student receive instruction in the basic and fundamental influences on health of the physical and social environment. When the work of the clinical years has become thoroughly permeated with a preventive and constructive viewpoint, there will still be need for a special course (perhaps preclinical) in Environmental Therapeusis, covering the influences of

sanitation and of the community machinery and social factors influencing physical and emotional well-being. This is a subject quite as important as Materia Medica.

Finally, in considering the basic problem of arousing in the medical undergraduate a really vital interest in prevention, we should not forget the obstacles placed in our way by the present economic basis of medical practice. So long as the doctor is paid on a fee-for-service basis, his income and his opportunity for service must depend on the treatment of disease, since he will be called in only when something hurts. The medical student subconsciously realizes this fact and inevitably feels that prevention, if not hostile to his interests, is at least irrelevant to them. Only when the doctor is habitually employed on a prepayment basis for health service will preventive and constructive medicine really become vitally significant.

BOOKS AND REPORTS

All reviews are prepared on invitation. Unsolicited reviews cannot be accepted.

Introduction to Public Health—*By Harry S. Mustard. (2nd ed.) New York: Macmillan,* 1944. 283 pp. Price, $3.25.

This book is a good standard text for the college student. It is also suitable for the first course given to the student of nursing, dentistry, or medicine.

The author has been skillful in boiling down such a comprehensive subject into 283 pages and still finding room for important details. Basic principles and trends are frequently referred to. The longest chapter contains 61 pages on The Acute Communicable Diseases. Seven pages are devoted to toxoid, antitoxin, and various other aspects of diphtheria, while one interesting and up-to-date page covers Rocky Mountain Spotted Fever. The subject of Sanitation is condensed into twenty pages. The brief mention of septic tanks is hardly in proportion to the rural health officers' headaches. There is no separate mention of the sanitation of eating places or of organized health education for food handlers.

The two new chapters added since the first edition are on the subjects of Industrial Hygiene and Medical Care. The eight pages on Industrial Hygiene bring out the relationship between workmen's compensation laws, industrial accidents and diseases, and the efforts of industry. The cost of the industrial hygiene program, estimated at $10 to $15 per year for each person employed, "must prove itself to be a good investment if the businessmen concerned are to engage in or continue it." In the new chapter on Medical Care the author quotes from the National Health Survey and other reports regarding the prevalence of disabling illness and the cost of medical care. The controversy as to government participation is clearly and objectively described. The paragraph, "Some Deterrents to a Wise Course" is admirably stated.

This book contains 16 tables but no illustrations. It has a good index. Two thousand items are listed.

V. L. ELLICOTT

Postwar Planning in the United States: 3. An Organization Directory—*New York: Twentieth Century Fund,* 1944. 34 pp. Price, $1.00.

This Directory is the third in a series of surveys made by the Twentieth Century Fund, revealing that these post-war planning groups have increased from 105 in 1942 and 137 in 1943 to nearly 200 in 1944. Thirty-nine are government and 158 are private agencies. Seventeen of the total are in the welfare and health group. A brief digest is presented of the background, activities, and personnel now engaged in post-war planning under each agency. The Directory can be recommended for its inclusive character. Each agency doing post-war planning should be aware of other agencies concerned with the same field.

REGINALD M. ATWATER

Stay Young and Live—*By J. Clarence Funk, Sc.D. Richmond, Va.: The Dietz Press,* 1943. 125 pp. Price, $1.75.

This book is by the Director of Education, Virginia State Department of Health. It has a foreword by the late Claude C. Pierce, M.D., U.S.P.H.S. (ret.).

The state of mind of the author of

this book is revealed by his happy choice of 28 chapter headings. Although he discusses common, everyday subjects, he dolls them up. Here are a dozen such titles: water, Water, Water Everywhere; air, Strictly Fresh; bathing, Dipping Into It; sleep, Morpheus; elimination, Personal Plumbing; walking, Pedaling Alone; teeth, That Murderous Mouth; alcohol, Down the Hatch; cigarets, And the Smoke Goes Up the Chimney Just the Same; pain, The Friendly Enemy; self medication, Medicine Man Tactics; worry, Mental Arsenic.

Dr. Funk gives the impression that he has no intention of saying everything that occurs to him, only enough to arouse the reader's interest and whet his appetite. Thus he is chatty, uses lively words and occasional Fred Allen phrases. Perhaps with his tongue in his cheek he deals with the sex problem in two pages, whereas the teeth get six.

There are no illustrations. The book is easy reading with good type, only 28 lines to the full page. Its purpose is to spread a common sense understanding of some fundamentals in right living. He engages in some kidding of the suckers who chase after commercialized vitamins, scalp restorers, halitosis, headaches, indigestion, obesity, constipation, and fallen arches.

W. W. PETER

Building a Popular Movement—A Case Study of the Public Relations of the Boy Scouts of America —*By Harold P. Levy. New York: Russell Sage Foundation,* 1944. 165 pp. Price, $1.25.

Mr. Levy ably describes the policies and methods by which the Boy Scouts of America have become the largest organization for boys in the democratic world. With admirable judgment he avoids administrative details and addresses himself to certain fundamentals which have implications of interest to every health officer and every leader of a voluntary health organization.

Public health, like welfare, is full of associations and societies that started in fond hopes of becoming "movements," but never quite succeeded in even being efficient office organizations. The urge to create new organizations, rather than utilize old ones, shows itself in the multitude of "block plans," "district health education programs," and neighborhood committees. Derryberry, Marquette, Morgan, and Widdemer have tested and developed the strategy of such community and neighborhood plans.

The evidence seems to be that such efforts, public or voluntary, can seldom succeed unless they relate themselves effectively to established media and established community organizations. Competition from organizations of more varied interests, plus public inertia, insure a high mortality for such community plans.

Few people now remember that the Boy Scouts, even with their broad program, met comparable resistances. Their competition was keen, the attraction of militarized rivals was great. The churches were skeptical; an early blunder in policy statement quite properly raised resistance from organized labor.

Mr. Levy describes how the organization built its appeal to its members and an acceptance with the public, an acceptance that in recent years has made early critics leading supporters and troop sponsors. The alert health educator will find many ideas he can transfer or adapt—ideas of policy and strategy, not technics.

This is the second monograph Mr. Levy has produced in the Russell Sage Foundation series of "Studies in Public Relations." The first was on a public agency, the Pennsylvania Department of Public Assistance. Other studies will follow. The Foundation,

Mr. Levy, and Mary Swain Routzahn who writes the Foreword, deserve the gratitude of all those engaged in the public relations of public service agencies for the job they have done.

PHILIP S. BROUGHTON

Psychiatry and the War—*Edited by Frank J. Sladen, M.D. Springfield, Ill.: Thomas,* 1943. 464 pp. Price, $5.00.

This volume is the record of the conference held at the University of Michigan in October, 1942, under the sponsorship of the university and the McGregor Fund, in order that psychiatry might " look itself over . . . examine its past experiences and its present techniques . . . consider its relationships, satisfactory or not, and . . . reshape, if needed, its aims and goals." The organizing committee had in mind also that this self-examination would help psychiatry play a more effective part in the war and post-war period.

The book is divided into five parts: the Philosophy of Psychiatry being part one; Research in Psychiatry and Psychiatry in the Training Experience, and Education of the Individual being parts two and three. These first three parts serve as a foundation or background for part four, entitled Psychiatry and the War. Part five is the record of the discussions of all the subjects covered in the preceding parts. This is perhaps the most interesting section of the book to the general reader because of differences in points of view which exist in many areas of psychiatry (as in other specialties, too), but which are not always apparent in the reading of the prepared papers comprising the first four parts of the volume. For example, Norman Cameron attacks psychosomatic medicine as an unfortunate term which is an encouragement " to go on thinking in a nineteenth century framework " of mind-body medicine, rather than developing and employing more scientific techniques to the study of human conduct. . . ." His paper on Psychological Research in Psychiatry is also provocative.

Of special interest to public health workers is the appeal of C. Macfie Campbell, in one of his last contributions before his death, for utilization and application of the current knowledge regarding human behavior as a practical outcome of the conference. In a few short paragraphs, he outlined principles which can be followed in a public health mental hygiene program.

This volume is a collection of thirty papers and two symposia contributed by some forty leaders in psychiatry and its closely allied interests. For the psychiatrist, this is an important milestone in the development of the specialty. For other professional workers this is a rich source book on psychiatry. For example, pediatricians and other child health workers should read the paper of Leo Kammer entitled " Psychiatry: Its Significance in Pediatrics "; Arnold Gesell on " Family Life." Those who are primarily concerned with disease prevention will find many papers of interest in the section on the Training, Experience, and Education of the Individual.

Perhaps the least satisfying part of the book is Psychiatry and the War. It must be remembered that these papers were delivered in October of 1942, before we had accumulated any great experience with psychiatric problems in wartime or begun seriously to think about or have to deal with the readjustment of military personnel to civilian life. Consequently, much of the material in these papers seems somewhat remote in the light of current problems.

GEORGE M. WHEATLEY

American Illustrated Medical Dictionary—*By W. A. Newman Dorland, with the collaboration of E. C. L. Miller. (20th ed.). Philadelphia: Saunders,*

1944. 1668 pp. with 885 illus., incl. 240 portraits. Price, $7.00 plain, $7.50 thumb-indexed.

The appearance of a 20th edition of this standard work reflects its established worth. Any reviewer can at best only sample the definitions from fields with which he may be familiar.

Medical students and practitioners will find the newer terms, many with very adequate definitions. It is strange that "sulfonamide" and "antibiotic" are inadequately covered. Public health students will be surprised to find "epidemiology" limited to epidemic diseases, but they will note an up-to-date attitude toward bacterial nomenclature.

The task of a dictionary editor is indeed difficult with our present extreme complexity of scientific parlance. To have achieved this new edition in wartime merits commendation.

REGINALD M. ATWATER

Health Education on the Industrial Front—*The 1942 Health Education Conference of the New York Academy of Medicine. New York: Columbia University Press,* 1943. 63 pp. Price, $1.25.

This book is not what its title indicates. It is not about health education as we generally understand it. Frankly, it is disappointing in this respect, because we have need of such a symposium on how to teach health to the workers in our industries. (Presumably the committee who arranged this conference did not give adequate thought to the title.) Dr. Malcolm Goodridge in his address of welcome indicates that the conference, which this small book covers, "is designed to promote health through the dissemination of knowledge concerning its realization and maintenance" and is held under the aegis of a Committee on Medical Information. He then compliments the committee for the theme chosen, "The Wartime Industrialization of the Community and Its Health Implications." This is the title which the book should have carried.

The first address on this subject by Dr. Cassius H. Watson, adheres to this title, thus introducing the theme for the conference. He has, with true vision, stated most comprehensively the problems confronting the health and safety of our industrial workers.

Drs. Leonard Greenburg and Lydia G. Giberson have also contributed much from their special fields. Each is able to speak authoritatively. Otto A. Bessey, Ph.D., discusses quite fully "Food and Nutrition in the Home and in the Work Place." It is a subject deserving attention from every possible angle. This is the only paper with a bibliography.

Harold R. Bixler, Personnel Director, Mutual Life Insurance Co., New York City, presents the final paper on "Educational Methods and Control of Accidents in Industry." This is the only near approach to health education, which might possibly bear out the title of the book. It presents some interesting statistics and tells how safety programs are instituted. He gives eleven motives which induce people to act safely and outlines methods of maintaining interest.

All in all, this little book deserves wide reading, but do not be misled by the title. WILLIAM A. SAWYER

Working Together for Health—*By William E. Burkhard, Raymond L. Chambers, and Frederick W. Maroney. New York: Lyons and Carnahan,* 1943. 373 pp. Price, $.75.

This is a textbook addressed in the foreword "To Young Citizens." It is intended for 8th graders. It is planned in units under such titles as "Healthy Americans," "United We Stand," "Be Safe Today," "The Most Wonderful Factory of All." The several units proceed from a general consideration of the importance of health to happiness, and

then take up the matter of germs, health protection in modern communities, homes, schools, and industry, safety and the human body. It closes with lists and descriptions of good games, food for fitness, weight-height-age tables, considerations of health and advertising and a self testing scale, a glossary and an index.

In general, this is a good book. A general criticism which applies to many portions of the book is that it leaves the reader unsatisfied in dealing too superficially with subjects which it attacks.

There is a lack of accuracy in small matters and this occurs so frequently that it becomes annoying to the well informed reader and may prove a handicap to the teacher. For example, on pages 8 and 9 reference is made to the "United States Social Security Agency." There is no federal agency by such a name. The correct title is "Federal Security Agency."

On page 59 there is emphasis on the "doorknob, book, or money that you touched" with reference to the danger of germs. The possibility of germ transmission through these common contacts is minimized in modern thinking.

On page 61 reference is made to a "tubercular" cow. The correct word is "tuberculous."

On page 62 the statement is made that "many city boys and girls do not know what fresh, unpasteurized milk tastes like." The context suggests that fresh, unpasteurized milk is superior to any pasteurized milk! this is contrary to fact in most localities.

On page 65 a totally inadequate reference is made to botulism; this should either have been omitted or enlarged.

On page 69 there is a gross error, when the claim is made on the behalf of Colonel Gorgas that "his vigorous *cleaning* of the entire area (Panama) made it possible for the workers to live without fear of infection." Gorgas failed completely when he relied merely on complete cleaning. It was specific mosquito control that brought success.

On page 75 vaccination and inoculation are referred to as if the two were identical which, of course, they are not.

On page 85 inspection of the Schick test is described as a day after the injection; the actual time is, of course, from 5 to 7 days after.

On page 87 sulfanilamide is referred to as "at first a dangerous drug" as if it were no longer dangerous when unskillfully used.

On page 91 Sister Kenny's method is referred to as "a combination of massage and hot applications"; she has vigorously denied that it is massage.

On page 101 a statement is made that sewage disposal plants have been constructed by sanitary engineers engaged by the health department. Health departments seldom engage construction engineers.

On page 114 milk is called the perfect food which, of course, it is not.

These little errors are not pointed out in a spirit of carping criticism, but because they indicate a failure to do that last careful job of checking which makes the difference between a good book such as this and the outstanding book which it might have been. It would not be difficult in a subsequent edition to correct these shortcomings.

W. W. BAUER

Voluntary Medical Insurance in the United States, Major Trends and Current Problems—*By Helen Hershfield Aunet. New York: Medical Administration Service,* 1944. 104 pp. Price, $1.00.

Physicians, public health workers, civic leaders, and others interested in trends of medical insurance in the United States will find one hundred pages of interesting facts and figures

dealing with voluntary medical insurance in the United States in this volume which is small and well written, divided into four parts, one of which is a summary. Part II, entitled "Representative Plans," deals with five group practice plans, one of which is the famous Kaiser plan. A chart on page 26 presents the more significant data with regard to services provided and costs under the five selected practice plans, each of which is discussed in some length.

The growth of the 77 "Blue Cross" hospital service plans during the past decade to nearly 12 million subscribers is attractively presented in table form and should be of much interest to both lay and professional groups that are interested in the future of more adequate medical services.

Commercially sponsored medical insurance group coverage is well treated. Several tables and a chart point out different types of health coverage, such as hospitalization, surgical, medical care, dependants, etc.

The summary deals with general trends of health insurance to cover all medical care expense; however, to date, no complete, comprehensive coverage has been given by any plan—prevention being most often omitted.

J. ROY HEGE

Fundamentals of Psychiatry—*By Edward A. Strecker. (2nd ed.) Philadelphia: Lippincott,* 1944. 205 pp. 15 Illus. Price, $3.00.

The author has assembled a body of fundamental information in compact, readable form which will enable the general practitioner, the medical student, the nurse, and the social worker "to obtain with a minimum of time a workable picture of the field of psychiatry."

The form of presentation follows the standard classifications in terms of etiology and symptomatology as used in the author's teaching experience. Well selected diagrams and short case studies are used to advantage.

In keeping with present need, chapters 9 and 10, "The Psychiatry of War" and "War Neuroses" should be of interest and use to a broader group than the medical profession alone.

Chapter 11, "The Nurse and the Psychiatric Patient," might well have been addressed to physicians as well as nurses, for we may admit the general medical practitioner too often avoids the responsibility of knowing and understanding the psychoneurotic patient, or even the average patient, as a human being with human emotions which affect his total health.

A brief glossary adds to the general clarity. This little book should help to make the beginnings of understanding psychiatry more simple, acceptable, and interesting.

MARTHA W. MACDONALD

Manual of Human Protozoa with Special Reference to Their Detection and Identification—*By Richard R. Kudo, D.Sc. Springfield: Thomas,* 1944. 125 pp. 29 figs. Price, $2.00.

This book is based upon the author's notes used in an emergency course in parasitology offered at the University of Illinois. Its viewpoint is practical, giving briefly the essential information for detecting and identifying protozoa of man. Most of the illustrations are original. All of them are drawn in black and white at uniform magnification, 1150 diameters.

The reviewer's chief criticism of this manual, or companion book, is that the figures of the malarial parasites are not in color. This lack greatly lessens its usefulness for teaching and for diagnostic purposes, since the important color characteristics of these parasites in their different phases of development are lost in black and white. Figure 27, showing various blood cells found in

stained blood films, would also have greater value had it been done in color.

It is not likely that any experienced worker will agree to the recommendation (page 53) that feces from suspected cases of dysentery be held in an incubator at 37° C. for later experimentation if an immediate or early examination is not possible. On page 71 the author calls attention to the similarity between coccidian oocysts and the eggs of two worm parasites, *Heterophyes heterophyes* and *Clonorchis sinensis*. A brief statement here as to the importance of knowing the geographical distribution of these parasites and the likelihood of a patient acquiring them would have been a helpful inclusion. Also, it should be pointed out that these two worm parasites are trematodes, not nematodes, as is stated. Barber and Kowp's method for the examination of blood for malaria is not included. This is an unfortunate omission, since this is now the preferred method and is more generally used by malariologists than the older method described on page 99. It is agreeable to note in this book the retention of the generic name Entamoeba, which is obviously correct, rather than Endamoeba, the name in common usage in North American publications. The manual is approximately pocket size. It is clearly written, well printed and bound. It will undoubtedly be a much used work of reference.

DONALD L. AUGUSTINE

A SELECTED PUBLIC HEALTH BIBLIOGRAPHY WITH ANNOTATIONS

RAYMOND S. PATTERSON, PH.D.

Against Vitamin Cure-alls in Milk—Milk is a logical carrier of vitamin D because of its calcium and phosphorus content. Restoring the removed vitaman B's to cereals is a sensible procedure, too. But, concludes the Council on Foods and Nutrition, the addition of extra "B's" and iron and iodine to milk is not justified from the standpoint of public health needs. You'll agree.

ANON. Fortification of Milk with Vitamins and Minerals. J.A.M.A. 126, 7:432 (Oct. 14), 1944.

"The Basic Health of the American People"—Every single man Jack—and lady Jill—among us should read every word of these papers from a panel discussion on "Variations in Industrial Medical Service Plans." You may rub your eyes in amazement when you see such sentences as these: "While industrialists have been willing to assume their part in the program of medical care, medical societies have been reluctant." "The majority of prepaid medical plans to date have failed and proved totally inadequate." "Experience has demonstrated the unwisdom of initiating a medical society prepayment program on a complete coverage basis." "I think the fee for service basis is definitely wrong in caring for the needs of the people." Altogether, the series is the most wholesome airing of a vital subject that has appeared in a dog's age.

ADAMS, J. M. Stanocola Medical Care Plan (and four related papers). J.A.M.A. 126, 6:333 (Oct. 7), 1944.

Nutritional Deficiency States and Infection—Perhaps the recent demonstration that vitamin deficient animals are less susceptible to certain virus infections will call a halt on the expensive and inadequate way of insuring a

balanced diet via the pill route: so speculate these researchers at the close of a useful paper.

AYCOCK, W. L., and LUTMAN, G. E. Vitamin Deficiency as an Epidemiologic Principle. Am. J. M. Sc. 208, 3:389 (Sept.), 1944.

T. A. M. vs. A. P. T.—Seven years' experience with toxin-antitoxin convinced this British M. O. H. that in it he had a stable and reliable immunizing agent. A comparable experience with toxoid leads him to believe it to be a prophylactic of variable potency. Now that toxin-antitoxin is no longer to be available, the "posterior Schick Test" must be stressed, says he. Also he wants an assured immunity in infancy rather than an unchecked initial course with a later "refill."

ANDERSON, A. Diphtheria Immunization. Pub. Health. 57, 12:131 (Sept.), 1944.

"Preach and Treat" Found Wanting—This paper is so long that I haven't the will power to wade through it but it ends with this paragraph: "The campaign of enlightenment and early treatment ('Preach and Treat') has failed, and will continue to do so until the public is educated in the methods of early and late preventive treatment and until there is compulsory notification (by numbers and not names) of all these diseases. Enormous sums of money are being spent on enlightenment and early treatment, but why not solve the problem entirely by using a little of it on early preventive treatment and compulsory notification?" Decide for yourself if you need to know the argument.

HARKNESS, A. H. Venereal Disease. J. Roy. San. Inst. 7, 10:252 (Oct.), 1944.

Department of Human Behavior—Of the troops served, 15–30 per cent refused any vegetable other than potatoes, as many as half the men failed to eat the entire serving and the uneaten remainders varied from 15 per cent (tomatoes) to 56 per cent (turnips). The men get precious little vitamin C from this source.

HOPKINS, J. W., *et al.* Statistical Estimation of Vitamin C Intake of Troops in Canadian Army Garrison Rations. Canad. Pub. Health J. 35, 10:384 (Oct.), 1944.

Plague—Because it is just a matter-of-fact account of the businesslike way the health officials went about the destruction of rats when plague ridden rodents were discovered in Tacoma, this paper is a pleasure to read. So it is commended to you even though it is quite likely that plague is one disease with which you will never deal.

HUNDLEY, J. M., and NASI, K. W. Anti-Plague Measures in Tacoma, Washington. Pub. Health Rep. 59, 38:1239 (Sept. 22), 1944.

Whose Fault?—A horrifying proportion of young American men are found unfit for military service. Who will be the scapegoat, the whipping boy to bear the blame? The schools, inevitably. After removing from the list the mental and physical defects which could not possibly be blamed on our schools, this editorial asks: what is left? This is "anybody's fight" so you may want to get in it.

KEENE, C. H. Editorial. J. School Health. 14, 8:202 (Oct.), 1944.

Another Penicillin Victory—It seems that penicillin works with congenital syphilis, too.

LENTZ, J. W., *et al.* Penicillin in the Prevention and Treatment of Congenital Syphilis. J.A.M.A. 126, 7:408 (Oct. 14), 1944.

Now You Can Really See Them—Not to be missed are these excellent pictures of bacteria and Rickettsias and viruses, their descriptions, and the discussion which accompanies them.

MUDD, S., and ANDERSON, T. F. Pathogenic Bacteria, Rickettsias, and Viruses as Shown by the Electron Microscope. J.A.M.A. 126, 9:561 (Oct. 28), 1944.

Good Job Well Done—You will be impressed by this straightforward story of the epidemiologic study of an outbreak of virulent pneumonitis which originated Heaven-knows-how, and spread by direct contact from fatal cases to nursing attendants. The causative agent was isolated and will be described in a later article.

OLSON, B. J., and TREUTING, W. L. An Epidemic of a Severe Pneumonitis in the Bayou Region of Louisiana. Pub. Health Rep. 59, 40:1299 (Oct. 6), 1944.

For the Idly Curious—This is really none of our business, but as a sidewalk superintendent, you may want to know that an army doctor reports 11 of 12 patients with gonorrhea as being cured by one shot of penicillin in a mixture of beeswax and peanut oil (which slows the absorption of the drug).

ROMANSKY, M. J., and RITTMAN, G. E. A Method of Prolonging the Action of Penicillin. Science. 100, 2592:196 (Sept.), 1944.

On Being Realistic about V. D.—Even though you may not, at the moment, be greatly concerned about V. D. or nursing, you should read this paper carefully in order to observe one man at work injecting new life into an old subject. Most professional people are such poor writers that they have much to learn from one who isn't.

SHOSTAC, P. The Nurse in Industry Organizes Against V. D. Pub. Health Nurs. 36, 10:302 (Oct.), 1944.

Constructive Medicine? — Dr. Steiglitz offers this term as a preferred synonym for preventive medicine. There *must* be a better term. Please help.

STEIGLITZ, E. J. Constructive Medicine. Science. 100, 2597:313 (Oct. 6), 1944.

When Experts Disagree—Suffering, as I do, from an abysmal ignorance of the whole subject, the reading of this lively symposium left me with a conviction that there must be a great deal yet to be learned about rheumatic fever.

WILSON, M. G., and LUBSCHEZ, R. Recurrence Rates in Rheumatic Fever (and four related papers). J.A.M.A. 126, 8:477 (Oct. 21), 1944.

BOOKS RECEIVED

HEALTH PRACTICE INDICES. Compiled from the Evaluation Schedules, Prepared by the Subcommittee on Manual of Practice and Appraisal of Local Health Work for the Committee on Administrative Practice of the American Public Health Association for 1943. 1944. 116 pp. Free.

NEW ARCHITECTURE AND CITY PLANNING. A Symposium. Edited by Paul Zucker. New York: Philosophical Library, 1944. 694 pp. Price, $10.00.

WHAT YOU SHOULD KNOW ABOUT TOBACCO. By Frank Leighton Wood, M.D. Grand Rapids: Zondervan Publishing House, 1944. 147 pp. Price, $1.50.

TRICHINOSIS. By Sylvester E. Gould, M.D. Springfield, Ill.: Thomas, 1945. 356 pp. Price, $5.00.

AND NOW TO LIVE AGAIN. By Betsey Barton. New York: D. Appleton-Century, 1944. 150 pp. Price, $1.75.

EDUCATION FOR ALL AMERICAN YOUTH. Washington, D. C.: Educational Policies Commission, National Education Association of the United States, 1944. 421 pp.

WOMEN AND MEN. By Amram Scheinfeld. New York: Harcourt, Brace, 1944. 453 pp. Price, $3.50.

FOES AFTER FORTY. By W. W. Bauer, M.D. Boston: John Hancock Mutual Life Insurance Company, 1944. 24 pp. Free from publisher.

CHILD CARE AND DEVELOPMENT. New York: Community Service Society, Department of Educational Nursing, 1944. 14 pp. 10¢ for single copies.

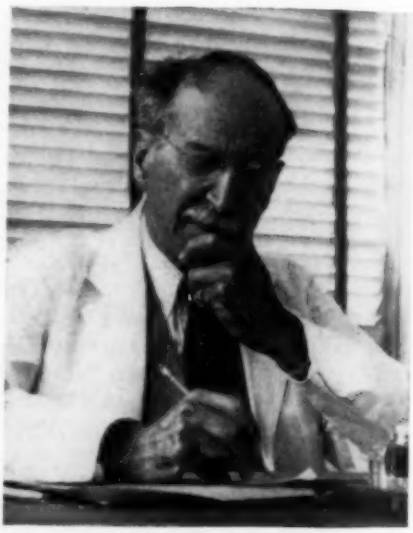
METHODS FOR DETERMINING LEAD IN AIR AND IN BIOLOGICAL MATERIALS. A Report Prepared by the Subcommittee on Chemical Methods of the Committee on Ventilation and Atmospheric Pollution of the Industrial Hygiene Section of the American Public Health Association. F. H. Goldman, Ph.D., Chairman. New York: American Public Health Association, 1944. 41 pp. Price, $.75.

ASSOCIATION NEWS

Milton J. Rosenau, M.D., President-Elect American Public Health Association

Dr. Milton J. Rosenau, Dean of the School of Public Health and Professor of Epidemiology at the University of North Carolina, Chapel Hill, was chosen President-Elect of the American Public Health Association at the 73rd Annual Meeting in New York City. Dr. Rosenau was born January 1, 1869, in Philadelphia. He received his medical degree in 1889 from the University of Pennsylvania, and an honorary A.M. from Harvard in 1914. He studied in Berlin, in Paris, and Vienna between 1892 and 1900. Dr. Rosenau served as Surgeon in the U. S. Public Health Service from 1890 to 1909, and for the last ten years of this period was Director of the Hygienic Laboratory (now the National Institute of Health). He was Professor of Preventive Medicine and Hygiene at Harvard from 1909 to 1935, Director of the School of Public Health, Harvard University and Massachusetts Institute of Technology 1913 to 1922, Professor of Epidemiology at the Harvard School of Public Health 1922–1935, Director of the Antitoxin and Vaccine Laboratory and Chief of the Division of Biologic Laboratories of the Massachusetts Board of Health 1914 to 1921. Since 1936 Dr. Rosenau has been in his present position at the new School of Public Health, University of North Carolina.

Among many honors that have come to Dr. Rosenau are presidencies of the American Society of Tropical Medicine, American Society of Epidemiologists, American Association of Immunologists, the American Association of Medical Milk Commissions, the Society of American Bacteriologists, and the Gold Medal of American Medicine for Service to Humanity, as well as the Sedgwick Memorial Medal which he received in 1934.



MILTON J. ROSENAU, M.D.

Dr. Rosenau is best known for his volume on *Preventive Medicine and Hygiene*, of which the 6th edition was published in 1935. He is also the author of *Disinfection and Disinfectants*, 1901, and of *The Milk Question*, 1912. His principal scientific researches have included the standardization of tetanus and diphtheria antitoxins, the epidemiology of typhoid fever, poliomyelitis, influenza, etc., contributions to anaphylaxis, studies on pasteurization, foot and mouth disease, vaccine virus, and on milk and its rela-

tion to the public health. Dr. Rosenau's bibliography includes more than one hundred and fifty titles.

In his long career, Dr. Rosenau established the first chair of Preventive Medicine and the first School of Public Health, both at Harvard. The Hygienic Laboratory was the first of its kind on this continent. Exceedingly few writers and teachers in the field of public health are as widely known as Dr. Rosenau. The American Public Health Association honors itself in honoring him.

RESOLUTIONS

The following Resolutions were unanimously adopted by the Association at the Seventy-third Annual Meeting in New York, N. Y., October 3–5, 1944.

1. APPRECIATION

TO DR. STEBBINS AND THE LOCAL COMMITTEE

RESOLVED that the American Public Health Association acknowledges its sincere appreciation to the New York Local Committee and the agencies and individuals represented thereon for their untiring efforts in connection with this Conference.

RESOLVED that the Association expresses its gratitude to Dr. Ernest L. Stebbins, Health Commissioner of New York and General Chairman of the Local Committee, and to the chairmen and members of the several subcommittees for their wholehearted cooperation and assistance in the planning and conduct of this Second Wartime Conference in New York City.

TO NEW YORK CONVENTION AND VISITORS BUREAU AND TO THE HOTEL PENNSYLVANIA

RESOLVED that the American Public Health Association records its appreciation to the New York Convention and Visitors Bureau and to the Hotel Pennsylvania for their splendid coöperation in making available the necessary facilities and space for the conduct of this Annual Meeting.

TO COÖPERATING AGENCIES

RESOLVED that the American Public Health Association extends its sincere thanks to the Public Health Association of New York City, to the National Health Council agencies, to the National Health Library, and to the National Publicity Council for their services in behalf of the Second Wartime Conference.

TO THE PRESS AND RADIO

RESOLVED that the American Public Health Association gratefully acknowledges the generous service of the press and radio, state and local, in carrying the message of the Wartime Public Health Conference to the public.

TO THE EXHIBITORS

RESOLVED that the American Public Health Association expresses its appreciation to its friends and coöperators who have presented such excellent exhibits for the interest and benefit of delegates at this Convention.

2. IN MEMORIAM

WHEREAS, a divine Providence in its wisdom and justice has seen fit to remove from our midst the following members of our Association and,

WHEREAS, by death we have been deprived of the companionship, advice, and counsel of these able and capable members in the Association, therefore be it

RESOLVED that we express our sorrow at the loss that we as members and collectively as the Association have sustained.

Fred Adams, M.B., D.P.H., Windsor, Ont., Elected Member 1914, Charter Fellow 1922.

Alice Ahern, R.N., Ottawa, Ont., Elected Member 1928.

Henry H. Asher, M.D., Manistique, Mich., Elected Member 1938.

Clarence M. Baker, Madison, Wis., Elected Member 1914, Charter Fellow 1922.

Ezra G. Carter, Dr.P.H., Logan, Utah, Elected Member 1924.

John F. D. Cook, M.D., Pierre, S. D., Elected Member 1939.

Walter W. Council, M.D., Juneau, Alaska, Elected Member 1933.

John E. Custis, M.D., Lemmon, S.D., Elected Member 1944.

W. F. Davison, M.D., Kingston, Pa., Elected Member 1930.

Meta DeLoache, Paterson, N. J., Elected Member 1941.

W. D. Dotterer, Chicago, Ill., Elected Member 1916, Fellow 1942.

Samuel M. Ellsworth, Boston, Mass., Elected Member 1939, Charter Fellow 1943.

Charles E. Finlay, M.D., Havana, Cuba, Elected Member 1940, Charter Fellow 1942.

James V. Foley, M.D., M.P.H., Pocatello, Idaho, Elected Member 1941.

W. Brownley Foster, M.D., Richmond, Va., Elected Member 1908, Charter Fellow 1923.

Julia George, Berkeley, Calif., Elected Member 1920.

Selskar M. Gunn, New York, N. Y., Elected Member 1905, Charter Fellow 1922.

Paul Hansen, Chicago, Ill., Elected Member 1905, Charter Fellow 1922.

Olaf Haraldson, M.D., Minot, N. D., Elected Member 1942.

Mrs. Mary S. Hull, R.N., Santa Fe, N. M., Elected Member 1940.

George E. Johnson, M.D., Philadelphia, Pa., Elected Member 1934.

Wilhelm O. Johnson, Springfield, Mass., Elected Member 1939.

Robert W. Kehr, Seattle, Wash., Elected Member 1934.

J. H. Kellogg, M.D., Battle Creek, Mich., Elected Member 1878

Israel J. Kligler, Ph.D., Jerusalem, Palestine, Elected Member 1912, Charter Fellow 1922.

J. Leake, M.D., Portsmouth, Va., Elected Member 1933.

Mary McCormick, R.N., Albany, N. Y., Elected Member 1937.

James R. McEachern, M.D., Tampa, Fla., Elected Member 1932, Charter Fellow 1936.

J. J. McShane, M.D., Dr.P.H., Springfield, Ill., Elected Member 1915, Charter Fellow 1922.

Paul Molitor, Chatham, N. J., Elected Member 1932.

H. Allen Moyer, M.D., Charlotte, Mich., Elected Member 1939.

Percy F. Murray, Peabody, Mass., Elected Member 1929.

Harry B. Neagle, M.D., Providence, R. I., Elected Member 1918.

J. F. Nickerson, Chicago, Ill., Elected Member 1912.

John Overton, M.D., Nashville, Tenn., Elected Member 1927.

M. B. Owens, M.D., Newport, Ark., Elected Member 1931.

Lillian A. Phelps, Oneonta, N. Y., Elected Member 1943.

Adrien Plamondon, Montreal, Que., Can., Elected Member 1931

Aurelia B. Potts, R.N., Nashville, Tenn., Elected Member 1928, Charter Fellow 1934.

William M. Randolph, M.D., Charlottesville, Va., Elected Member 1936.

C. B. Ransone, M.D., Roanoke, Va., Elected Member 1924.

Armin V. St. George, M.D., New York, N. Y., Elected Member 1934.

William V. Sanford, M.D., Ripley, Tenn., Elected Member 1930.

Herman M. Schoberg, St. Paul, Minn., Elected Member 1923.

Blanche F. Sigman, Copley, Ohio, Elected Member 1941.

Dr. Rafael Silva, Mexico City, Mexico, Elected Member 1930.

Robert M. Stith, M.D., Highlands, Wash., Elected Member 1925.

A. L. Stone, M.D., Camden, N. J., Elected Member 1920.

Thomas A. Storey, M.D., Stanford University, Calif., Elected Member 1912, Charter Fellow 1922.

Hassow Van Wedel, M.D., New Rochelle, N. Y., Elected Member 1915, Charter Fellow 1922.

Lewis W. Waters, New York, N. Y., Elected Member 1937.

Clifford C. Young, D.P.H., Lansing, Mich., Elected Member 1912, Charter Fellow 1922.

3. Serving of Nutritious Meals to School Children

WHEREAS, the serving of nutritious meals to children attending school has been demonstrated to be an important aspect of both the health program and the educational program of the school, and

WHEREAS, the financial ability of a school system to serve adequate meals within the means of the child patrons is likely to be least in those areas in which the nutritional need is greatest, be it

RESOLVED that the American Public Health Association favors aid to school systems to make possible the serving of meals under administrative control and technical supervision by school authorities. Such aid should be conditional on the maintenance of adequate but reasonable standards, providing for safe, wholesome foods combined into nourishing meals, dispensed without profit to the school or any other agency, and served without discrimination between those children who can pay for their meals and those who cannot.

4. Continued Enrichment of Staple Foods

WHEREAS, the order of the War Food Administrator making compulsory the enrichment of white bread and rolls, the legislative action of certain states with regard to enrichment of certain staple foodstuffs,

and the voluntary action of many food industries have resulted in an improvement in the national dietary with respect to several highly essential nutrient elements, and

WHEREAS, this enrichment in staple low cost foods has been of proportionately greater benefit to the economic groups whose diet is most in need of betterment, and

WHEREAS, the federal order for enrichment of white bread and rolls will terminate with the passing of the war emergency, be it

RESOLVED that the American Public Health Association goes on record as favoring appropriate state and federal action to perpetuate the benefits that have accrued to the national dietary through enrichment of staple foods in accordance with the recommendations of the National Research Council.

5. ADEQUATE COMPENSATION FOR PUBLIC HEALTH PERSONNEL

WHEREAS, the application and administration of public health principles and skills has become a specialty for which special training is required, and

WHEREAS, the safeguarding and improvement of the health of the people have always been primary concerns of the State, presenting opportunities and responsibilities that have attracted and should continue to attract some of the ablest members of various professions, and

WHEREAS, public health workers have often devoted their lives to this field at the cost of such personal sacrifice as inadequate compensation, political interference, insecure tenure of office, lack of opportunity for research or for personal advancement, and

WHEREAS, this Association has repeatedly pointed out the fact that many sections of the country are now without the benefit of any full-time, trained public health workers, and other sections have woefully inadequate numbers of trained public health workers, and

WHEREAS, the post-war period will call for even larger numbers of competent people to safeguard the public health, now therefore be it

RESOLVED that—

1. Adequate compensation and reasonable security in tenure of office will be necessary before public health workers with proper professional qualifications to assume the heavy responsibility of protecting and improving the health of the public will be available in sufficient number to meet the nation's existing and future needs.

2. It is the considered opinion of this Association that health officers and all other specialists in the public health field who have been specially trained for their highly important work should be compensated for their services in an amount comparable with the net income of their professional colleagues in the community.

6. A NATIONAL PROGRAM OF DENTAL CARE

WHEREAS, the public health professions have long sought means to develop a program of preventive dental services, and

WHEREAS, dental surveys almost universally disclose a widespread prevalence of dental disease in the United States, and

WHEREAS, dental disease was the greatest single factor in rejection among selectees at the beginning of the present world conflict, and

WHEREAS, the dental problem requires organized group action for its solution as a part of a general medical care program, therefore be it

RESOLVED that the American Public Health Association endorse and support efforts along the following lines:

1. Research to reduce the incidence of dental disease.
2. Research and demonstration to develop and test administrative procedures designed to reduce the cost and increase the spread of dental care.
3. Education of the public in the need of early and continuous dental care to prevent an increasing accumulation of dental defects.
4. Development of reparative programs, especially for the younger age groups.
5. Stimulation of health agencies at local, state, and federal levels to secure funds and recruit and train personnel to implement the foregoing program.

Be it further

RESOLVED that the Executive Board of the American Public Health Association institute such measures as may be necessary for obtaining the above objectives.

7. MEDICAL CARE

WHEREAS, adequate medical, nursing, and dental care for all is fundamental to the health and happiness of the people of the United states, be it therefore

RESOLVED that the American Public Health Association endorse the principle that each health department should feel a responsibility for seeing that within its jurisdiction

an adequate program for such medical care be developed as promptly as practicable.

8. Assistance to United Nations Relief and Rehabilitation Administration

WHEREAS, the United Nations Relief and Rehabilitation Administration has been entrusted with the responsibility of assisting in the rehabilitation of countries which have been ravaged by the enemy, and,

WHEREAS, one of the principal objectives of this Administration is to restore to full function national health departments, be it therefore

RESOLVED that the American Public Health Association express its full sympathy with this objective and that the Executive Board be requested to seek ways and means by which the Association may assist the United Nations Relief and Rehabilitation Administration in its great task.

9. International Public Health Organization

WHEREAS, by the grace of God, the bravery and skill of the military forces of the United Nations are about to be rewarded by complete victory, and

WHEREAS, the promotion of public health in all parts of the world is recognized by all to be of paramount importance to the future happiness and prosperity of mankind, and

WHEREAS, there exists at present no international public health organization whose activities are world-wide in scope, be it therefore

RESOLVED that the Executive Board be requested to bring to the attention of the Government of the United States of America, in the name of the American Public Health Association, the urgent need of immediate planning for the development of such an agency.

NEW FELLOWS OF THE A.P.H.A. ELECTED AT THE 73rd ANNUAL BUSINESS MEETING

Health Officers Section

Samuel D. Allison, M.D., M.P.H., Venereal Disease Control Officer, Territorial Board of Health, Honolulu, T. H.

Will H. Aufranc, M.D., M.P.H., Surgeon (R), U. S. Public Health Service; Venereal Disease Control Officer, State Board of Health, Portland, Ore.

Floyd C. Beelman, M.D., Secretary and Executive Officer, State Board of Health, Topeka, Kans.

Ruth E. Church, M.D., M.S.P.H., Medical Director, Washington County Health Unit and District Health Service 7, Washington, Iowa

Harold M. Erickson, M.D., M.P.H., Assistant State Health Officer, Portland, Ore.

Stanford F. Farnsworth, M.D., M.P.H., Health Officer, Oakland, Calif.

Warren F. Fox, M.D., Riverside County Health Officer, Riverside, Calif.

Donald K. Freedman, M.D., Health Officer, Newport News, Va.

Clifton F. Hall, M.D., M.P.H., Director, Mecosta-Osceola Health Department, Big Rapids, Mich.

Austin E. Hill, M.D., M.P.H., Director of Public Health, Houston, Tex.

Lt. Commander Harold Jacobziner, USN, Acting Sanitation Officer and Quarantine Officer, Norfolk Navy Yard, Portsmouth, Va.

Irvin Kerlan, M.D., C.P.H., Medical Officer, U. S. Food and Drug Administration, Washington, D. C.

James P. O'Brien, M.D., C.P.H., District Health Officer, Northern Health Unit, Woonsocket, R. I.

Major Frank W. Parker, Jr., M.C., Chief, Preventive Medicine Branch, Medical Section, Headquarters First Air Force, USAAF, Mitchel Field, N. Y.

Cecil A. Z. Sharp, M.D., M.S.P.H., Will County Health Officer, Joliet, Ill.

Wilfred N. Sisk, M.D., M.P.H., Director and Health Officer, Buncombe County Health Department, Asheville, N. C.

Hubert O. Swartout, M.D., Dr.P.H., Los Angeles County Health Officer, Los Angeles, Calif.

Jules R. Thebaud, D.D.S., Director General, National Public Health Service, Port-au-Prince, Haiti

Glen S. Usher, M.D., Chief, Bureau of Venereal Disease Control, State Health Department, Trenton, N. J.

Benjamin F. Wyman, M.D., State Health Officer, Columbia, S. C.

Laboratory Section

Luther A. Black, Ph.D., Senior Bacteriologist, U. S. Public Health Service, Cincinnati, O.

Geoffrey Edsall, M.D., Acting Director, Divi-

sion of Biologic Laboratories, State Department of Public Health, Boston, Mass.

Carolyn R. Falk, B.A., Bacteriologist, Department of Health, New York, N. Y.

Stanley E. Hartsell, Ph.D., Associate Professor of Bacteriology, Purdue University, W. Lafayette, Ind.

Nell Hirschberg, Ph.D., Associate Bacteriologist, U. S. Public Health Service, Raleigh, N. C.

Melvin E. Koons, M.P.H., Director, Division of Laboratories, State Department of Health, Grand Forks, N. D.

Malcolm H. Merrill, M.D., Chief, Division of Laboratories, State Department of Public Health, Berkeley, Calif.

Pablo Morales Otero, M.D., Director and Professor of Bacteriology and Immunology, School of Tropical Medicine, San Juan, P. R.

Leslie A. Sandholzer, Ph.D., Associate, U. S. Department of the Interior, College Park, Md.

Anna M. Sexton, Librarian, Division of Laboratories and Research, State Department of Health, Albany, N. Y.

Aimee Wilcox, Assistant Protozoologist, U. S. Public Health Service, Memphis, Tenn.

Vital Statistics Section

Anthony J. Borowski, Dr.P.H., Assistant in Biostatistics, Medical College of Virginia, and Statistician and Chief Clerk, Health Department, Richmond, Va.

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Frances A. Macdonald, A.B. (formerly Director, Bureau of Vital Statistics, Board of Health, Hartford, Conn.)

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Engineering Section

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Glen J. Hopkins, B.S.C.E., Director, Division of Engineering, State Board of Health, Pierre, S. D.

Nelson H. Rector, B.E.C.E., Sanitary Engineer (R), U. S. Public Health Service, Atlanta, Ga.

Industrial Hygiene Section

Allen D. Brandt, Sc.D., Sanitary Engineer, U. S. Public Health Service, Chicago, Ill.

Irving Gray, M.D., Practitioner of Industrial Medicine; Member, Public Health Committee, and Chairman, Committee on Industrial Health, Kings County Medical Society; Member, Public Health Committee, Brooklyn Chamber of Commerce, Brooklyn, N. Y.

Food and Nutrition Section

Ernestine Becker, M.A., Associate in Biochemistry and Nutrition, Johns Hopkins School of Hygiene and Public Health, Baltimore, Md.

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Lt. Col. Cecil G. Dunn, Q.M.C., Chief, Dehydration Section, Office of the Quartermaster General, U. S. Army, Washington, D. C.

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Gordon W. Molyneux, Supervising Milk Inspector, Westchester County Department of Health, White Plains, N. Y.

Pearl Rorabaugh, M.S., Nutritionist, State Department of Health, Topeka, Kans.

Fredrick J. Stare, M.D., Ph.D., Associate Professor of Nutrition, Harvard School of Public Health, Boston, Mass.

Maternal and Child Health Section

Paul R. Ensign, M.D., M.P.H., Pediatric Consultant, State Department of Health, Atlanta, Ga.

Major Samuel B. Kirkwood, M.C., Ashford General Hospital, West Virginia (formerly Instructor in Obstetrics and Maternal Health, Harvard Medical School and School of Public Health)

Martha A. O'Malley, M.D., M.P.H., Assistant in Child Hygiene, Harvard School of Public Health, Boston, Mass.

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Epidemiology Section

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Lieut. Bernard D. Daitz, Sn.C., Chief, Reports and Statistics, Typhus Control Service, Allied Control Commission (overseas)

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Capt. G. Harold Warnock, Laboratory Officer, Station Hospital (overseas) (formerly Epidemiologist, Nassau County Health Department, Mineola, N. Y.)

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School Health Section

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Dental Health Section

David B. Ast, D.D.S., M.P.H., Assistant Director for Oral Hygiene, State Department of Health, Albany, N. Y.

Thomas W. Clune, D.M.D., M.P.H., Public Health Dentist, State Department of Health, Providence, R. I.

Bion R. East, D.D.S., Assistant Professor of Public Health Practice, DeLamar Institute of Public Health, Columbia University, New York, N. Y.

John W. Knutson, D.D.S., Dr.P.H., Dental Consultant to State Health Authorities, U. S. Public Health Service, Bethesda, Md.

Unaffiliated

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West J. Altenburg, Ph.D., New York State Representative, National Foundation for Infantile Paralysis, Albany, N. Y.

E. Harold Hinman, M.D., M.P.H. Chief of Party, Institute of Inter-American Affairs, Mexico, D. F., Mexico

Samuel H. Hopper, Ph.D., P. A. Sanitarian (R), U. S. Public Health Service, Chapel Hill, N. C.

Capt. Nicholas C. Leone, Sn.C., Nutrition Officer, Allied Military Government (overseas)

John D. Long, M.D., D.Sc., Traveling Representative, Pan American Sanitary Bureau, Lima, Peru

Maurice C. O'Shea, M.D., School Medical Inspector, Board of Education, New York, N. Y.

Ralph M. Palmer, M.A., Consulting Chemical Engineer, New York, N. Y.

Solomon L. Pearlman, M.D., M.S.P.H., Director of Venereal Disease Clinics, Health Department, Chicago, Ill.

Lyon P. Strean, Ph.D., D.D.S., Scientific Director, Ayerst, McKenna and Harrison, Ltd., New York, N. Y.

APPLICANTS FOR MEMBERSHIP

The following individuals have applied for membership in the Association. They have requested affiliation with the sections indicated.

Health Officers Section

Mauldin J. Boggs, Jr., M.D., M.P.H., 67 N. Main St., Abbeville, S. C., District Health Officer, State Board of Health

Wei Chang, M.D., M.P.H., National Health Administration, Chungking, China, Deputy Chief of Health Section, Central Planning Board of China

Claire A. Christman, M.D., 2141 Eye St., N.W., Washington, D. C., Asst. Health Officer, Montgomery County Health Dept.

Allan R. Doane, M.D., 120 King St., Welland, Ont., Canada, Medical Officer of Health

Felipe Garcia-Sanchez, Calzada La Piedad 6, Desp. 101, Mexico, D.F., Mexico, Sub-Director of the General Office of the Ministry of Health and Welfare

Capt. Philip Kramer, M.C., Station Hospital, Fort Snelling, Minn., Medical Officer, U. S. Army

Jefferson C. Newman, M.D., Dodge-Saunders County Health Unit, Wahoo, Nebr., Director

Abraham Pansy, M.D., 12 Jackson St., South River, N. J., Health Officer

William L. Phillips, M.D., Obion-Lake District Health Dept., Tiptonville, Tenn., Director

Elson B. Potts, M.D., City Hall, St. Thomas, Ont., Canada, Medical Officer of Health

Norman D. Thetford, M.D., Christiansted, St. Croix, Virgin Islands, Asst. Commissioner of Health

Ruth B. Thomas, M.D., Bellevue Hospital, New York, N. Y., Surgeon (R), U. S. Public Health Service

Edward T. Titlebaum, M.D., Rose Rd., Orangeburg, N. Y., Local Health Officer

K. F. Yao, M.D., Health Commission, Kweiyang, China, Commissioner

Laboratory Section

Fern Anderson, 1010 E. 5th Ave., Houghton, Mich., Bacteriologist, State Dept. of Health

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Major Hastings R. Clark, 144 Grande Altee, Quebec, Que., Canada, District Hygiene Officer, Royal Canadian Medical Corps

Dr. Alfonso Costa, San Cristobal 352, Santiago, Chile, S. A., Clinical Pathologist

Joseph G. Fallon, M.P.H., Biology Dept., Pacific Union College, Angwin, Calif., Instructor and Health Officer

Oliver N. Fellowes, Ph.D., 90 N. Ridgeway, Glenolden, Pa., Research Virologist, Sharp and Dohme, Inc.

Capt. Robert T. Foster, Sn.C., Bruns General Hospital, Santa Fe, N. M., Medical Inspector

Lt. Robert A. Gilkey, Sn.C., Box 38, Lawson General Hospital, Atlanta, Ga., Asst. Medical Inspector

Ferdinand R. Hassler, M.D., M.P.H., State Health Laboratory, Oklahoma City, Okla., Director, Bureau of Laboratories, State Health Dept.

George K. Mar, Ph.D., National Health Administration, Chunking, China, Department Head (Food & Drug)

Dennis J. Orsini, C. B. Dolge Co., Saugatuck, Conn., Bacteriologist

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Robert Rucker, Ph.D., Box 128, College Park, Md., Bacteriologist, U. S. Fish and Wildlife Service

Herman M. Salk, New York State Veterinary College, Ithaca, N. Y., Student

Major Arvey C. Sanders, Sn.C., Station Hospital, Edgewood Arsenal, Md., Chief of Laboratory Service

Arthur Shapiro, M.D., 60 Plaza St., Brooklyn 17, N. Y., Instructor in Physiology, Sarah Lawrence College

Randall L. Thompson, M.D., 2109 Adelbert Rd., Cleveland 6, Ohio, Assoc. Professor of Bacteriology, Western Reserve University

Capt. Frederick J. Vollmer, M.C., 614 Springfield Ave., Baltimore 12, Md., Medical Officer, U. S. Army

Vital Statistics Section

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Chester W. Young, M.A., Bureau of the Census, Div. of Vital Statistics, Washington, D. C., Senior Social Science Analyst

Engineering Section

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John K. Dorsey, 321 W. Huron St., Chicago 10, Ill., National Chairman, Poliomyelitis Research Committee, American Society of Sanitary Engineering

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Industrial Hygiene Section

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Food and Nutrition Section

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Public Health Education Section

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Luella M. Clough, R.N., 111 E. Spring St., Oxford, Ohio, Staff Nurse, Butler County General Health District

Mary T. Collins, R.N., 2311 N. Calvert St., Baltimore 18, Md., Instructor of Public Health Nursing, State Dept. of Health

Mary E. Corcoran, U. S. Public Health Service, Washington 15, D. C., Adviser on Psychiatric Nursing

Elsie Hickey, City Hall, Room 309, Toronto, Ont., Canada, Director of Nursing Division, Dept. of Public Health

Harriet H. Keefer, Caribou, Me., Supervisor, Newark Visiting Nurse Assn.

Edell F. Little, 2530 W. 8th St., Los Angeles 5, Calif., Director, Los Angeles Visiting Nurse Assn.

Elin MacDougall, M.A., 295 Golden Hill St., Bridgeport, Conn., Asst. Director and Educational Supervisor, Bridgeport Visiting Nurse Assn.

Margaret S. Sharp, R.N., Standard Oil Co. of New Jersey, Box 16, Elizabeth, N. J., Visiting Nurse and Industrial Nurse

Romaine Smith, R.N., Weld County Health Dept., Court House, Greeley, Colo., Supervisor of Public Health Nurses, State Dept. of Health

Marion E. Stevens, 329 Park Ave., Newark 7, N. J., Health Teacher, Board of Education

Beatrice C. K. Talbot, 1908 Evergreen Ave., Antioch, Calif., School Nurse, Antioch-Live Oak School District

Elsie T. VanZandt, 415 Woodland Ave., Leonia, N. J., Administrative Asst., Visiting Nurse Service of New York

Hilda Vohman, R.N., Staff Hotel, Ajax, Ont., Canada, Public Health Nurse, Village of Ajax

Nellie L. Winey, 834 Highland Ave., Westfield, N. J., Supervisor, Westfield District Nursing Assn.

Epidemiology Section

Juan Allwood-Paredes, M.D., M.P.H., Direccion de Sanidad, San Salvador, El Salvador, C. A., Director, Division of Epidemiology

Major Harold M. Horack, 1818 H. St., N.W., Washington 25, D. C., Medical Intelligence Division, Preventive Medicine Service, Office of the Surgeon General, U. S. Army

Charles A. Janeway, M.D., 300 Longwood Ave., Boston, Mass., Asst. Professor of Pediatrics, Harvard School of Public Health

Anna C. Kling, 720 West 173rd St., New York 32, N. Y., Instructor in Epidemiology, DeLamar Institute of Public Health

Rodolfo Mascarenhas, M.D., M.P.H., 38 Trumbull, New Haven, Conn., Technical Asst., Sao Paulo State Health Dept., Brazil, S. A.

Eric Gaston Mitchell, M.D., 2539 Corprew Ave., Norfolk 2, Va., Attending Physician, City Dept. of Public Welfare

Joseph E. Moore, M.D., 804 Medical Arts Bldg., Baltimore 1, Md., Consultant to Surgeon General, U. S. Army

Carlos de Vasconcellos, M.D., Univ. Hospital, c/o Dr. J. Toomey, Cleveland, Ohio, Fellow of the U. S. Public Health Service, and Pan American Sanitary Bureau

Theodore S. Wilder, M.D., 100 West Coulter St., Philadelphia 44, Pa., School Physician, Germantown Friends School

Winston W. Yung, M.D., M.P.H., National Health Administration, Chungking, China, Director, Dept. of Epidemic Prevention

School Health Section

Alice S. Coogan, M.A., 5 Fairway Rd., Lido, Long Beach, N. Y., School Nurse, Board of Education

Helen L. Coops, Ph.D., University of Cincinnati, Cincinnati, Ohio, Assoc. Professor of Health and Physical Education

Mary B. Fenelon, 519 Smithfield St., Pittsburgh 22, Pa., Exec. Secy., Child Health Division, General Health Council

Gladys Geer, 318 N. Arlington Ave., East Orange, N. J., Instructor in Health Education and Social Studies, Ashland School

Lelia Pedicord, R.N., 712 W. 4th St., Anaconda, Mont., School Nurse, Anaconda Public Schools

William S. Randolph, M.D., 3 West 3rd St., Mount Vernon, N. Y., School Physician, Mount Vernon Board of Education

Ernest H. Watson, M.D., School of Public Health, Univ. of Michigan, Ann Arbor, Mich., Assistant Professor of Child Health

Dental Health Section

Maxwell L. Gaines, D.D.S., 48 Baltimore St., Hartford, Conn., Passed Assistant Dental Surgeon (R), U. S. Public Health Service

Unaffiliated

Joe R. Clemons, M.D., 428 W. 59th St., New York 19, N. Y., Medical Director, Roosevelt Hospital

James D. Colman, M.E., Calvert Bldg., Baltimore 2, Md., Exec. Director, Associated Hospital Service of Baltimore

Nicholas W. Fenney, Ph.G., 62 Broadfield Rd., Hamden, Conn., Asst. Professor of Pharmacy, Univ. of Connecticut College of Pharmacy

Marion L. Henry, 677 Hudson Ave., Albany, N. Y., Asst. Director of Accounts, State Dept. of Health

George H. Hicks, M.D., 1973 South Main St., Fall River, Mass., Chairman, Board of Health

Helen B. Lloyd, Murphy's Hotel, Richmond 19, Va., City commander, Richmond Chapter, Virginia Cancer Foundation, Inc.

Stephen A. Mahoney, M.D., 630 Dwight St., Holyoke, Mass., Member, Board of Health

Elizabeth C. Robison, 308 State Theatre Bldg., Harrisburg, Pa., State Commander, Field Army, American Cancer Society

Capt. V. S. Viswanathan, M.B., M.P.H., Stanley Medical College, Madras, India, Professor of Hygiene and Preventive Medicine and Vice Principal

Margaret B. Watson, Box 118, Walton, N. Y., Exec. Secy., Delaware County Tuberculosis Assn.

DECEASED MEMBERS AND FELLOWS

Cloyd M. Chapman, Glen Cove, N. Y., Elected Member 1941, Unaffiliated

W. D. Dotterer, Chicago, Ill., Elected Member 1916, Elected Fellow 1942, Laboratory Section

William F. Wild, M.D., Jackson Heights, L. I., N. Y., Elected Member 1927, Elected Fellow 1931, Health Officers Section

Mrs. C. Mayfield, M.S., New Orleans, La., Elected Member 1925, Elected Fellow 1941, Laboratory Section

Mary McCormick, R.N., Albany, N. Y., Elected Member 1937, Public Health Nursing Section

JOURNALS WANTED

The A.P.H.A. headquarters has exhausted its supply of June and August issues of the JOURNAL. Members who can spare any of these issues are requested to send them (collect) to the A.P.H.A. at 1790 Broadway, New York 19, N. Y.

EMPLOYMENT SERVICE

The Association Employment Service seeks to bring to the attention of appointing officers the names of qualified public health personnel and to act as a clearinghouse on employment. This is a service of the Association conducted without expense to the employer or employee.

From the registry of persons available, selected announcements are published from time to time. Appointing officers may obtain lists of all registrants on request.

Address all correspondence to the Employment Service, American Public Health Association, 1790 Broadway, New York 19, N. Y.

POSITIONS AVAILABLE

(Supplemental to list in November JOURNAL, page 1207)

Wanted: Public health statistician. College degree required and training or experience or both in epidemiology, vital statistics or administrative public health statistics. Several positions are available in New York City. Opportunity for formal training at a school of public health may be given to properly qualified applicants. Salary $2,700 minimum. Residence requirements waived. Persons interested can communicate with the Director, Bureau of Records and Statistics, New York City Health Department, 125 Worth St., New York 13, N. Y.

Active public health association in Eastern Metropolitan area seeks person experienced in community health education with reference to tuberculosis, child health, venereal disease, education, and nutrition. Salary up to $2,500 per annum. Write **Box T,** Employment Service, A.P.H.A.

STATE OF ARIZONA MERIT SYSTEM COUNCIL ANNOUNCES CONTINUOUS RECRUITMENT FOR FOLLOWING POSITIONS IN STATE DEPARTMENT OF HEALTH AND COUNTY HEALTH DEPARTMENTS:

Positions	*Salary Range*	
	Entrance	*Maximum*
Director of Local Health Unit	$350	$400
Health Officer-in-Training	300	350
Clinician in Field of Maternal and Child Health	350	400
Public Health Nursing Consultant	185	210
Public Health Nurse	160	185
Public Health Nurse, War Emergency	135	160
Junior Public Health Nurse	135	160
Public Health Nurse-in-Training	110	135
Staff Nurse	125	150
Staff Nurse, War Emergency	125	150
Sanitarian	160	210
Sanitarian-in-Training	160	185
Senior Bacteriologist-Serologist	175	225
Junior Bacteriologist-Serologist	125	175
X-Ray Technician	175	200
Vital Statistician	175	200

Apply J. Forrest Ingle, Merit System Supervisor, 411 Home Builders Bldg., Phoenix, Arizona.

POSITIONS WANTED

(Supplemental to list in November JOURNAL, page 1209)

Well qualified public health engineer will consider, 1: planning work requiring broad experience and educational background, 2: service with state or local governmental unit, 3: plant superintendent or plant engineer for sewage, water or combined utilities. **E-483**

Physician with background in vital statistics, epidemiology and preventive medicine seeks position in research or health administration. Salary from $3,600. **A-514**

Exhibit designer, now actively engaged in planning health education exhibits, seeks appointment with responsible organization where ability and experience can be recognized. Competent in supervision. Knows advertising and production. Sound postwar future desired. **H-511**

NEWS FROM THE FIELD

REORGANIZATION OF PUBLIC HEALTH STRUCTURE IN CANADA

It has been announced recently that the Dominion of Canada hereafter will have three new departments of government replacing the former Department of Pensions and National Health. These will be: (1) Department of Veterans Affairs, (2) Department of National Health and Welfare, (3) Department of Reconstruction.

The Department of National Health and Welfare will be headed by Mr. Brooke-Claxton, a Montreal lawyer who has been serving as assistant to Mr. Mackenzie King, the Prime Minister. The Deputy Minister of Welfare will be George F. Davidson, Ph.D. The Deputy Minister of Health will be Dr. Brock Chisholm, who has served as Director General of Medical Services for the Canadian Army and is a well known psychiatrist.

It is understood that, effective July 1, 1945, the plan has been adopted for grants-in-aid to each child in the Dominion irrespective of financial need. These are to be at the rate of $5 for children under 6 and $6 per month for children 6 to 10.

Dr. R. E. Wodehouse, who has served for many years as Deputy Minister of the Department of Pensions and National Health, has been appointed a Commissioner on the Canadian Pensions Board and a consultant in health to the Department of Veterans Affairs.

MASSACHUSETTS CELEBRATES SEVENTY-FIVE YEARS

The seventy-fifth anniversary of the establishment of the Massachusetts State Board of Health, the first in America, is to be celebrated in Boston by an all-day meeting on December 6. The honors are shared by the Antitoxin and Vaccine Laboratory which was opened fifty years ago.

Among the invited guests were Dr. Thomas Parran, Surgeon General of the U. S. Public Health Service, Brigadier-General James S. Simmons, of the office of the Surgeon General of the United States Army, Dr. C.-E. A. Winslow, of Yale University, Dr. Martha Eliot, of the U. S. Children's Bureau, Dr. Allan J. McLaughlin, formerly Commissioner of Health, Dr. Milton J. Rosenau, of the University of North Carolina, President-elect of the American Public Health Association, Dr. Paul B. Dunbar, Commissioner of the U. S. Bureau of Food and Drugs, and Dr. Reginald M. Atwater, of the American Public Health Association.

The program included a morning meeting at the Peter Bent Brigham Hospital, a buffet luncheon at the Antitoxin Laboratory, afternoon and evening meetings at Ford Hall, and dinner at the Parker House. Dinner guests included Governor Saltonstall, the Health Commissioners of the New England States, Deans of the Massachusetts schools of medicine and public health, and representatives of the American Public Health Association, the Massachusetts Medical Society, and the Massachusetts Public Health Association.

HEALTH EDUCATION FELLOWSHIPS AWARDED

The U. S. Public Health Service has announced that 28 fellowships in health education have been awarded to men and women in 20 states under a new program of the National Foundation for Infantile Paralysis and a continuing grant of the W. K. Kellogg Foundation. The National Foundation maintains 22 of the fellowships. Persons selected

will be assigned to courses in public health at Yale, University of Michigan, and the University of North Carolina. The training will consist of 9 months' academic work and 3 months' supervised field experience. Dr. Parran, in announcing the awards, said that the existing shortage of trained health educators and the demand for expansion of health education activities indicated, both in this country and abroad, the need for qualified personnel with a thorough understanding of both public health and education.

The recipients of the fellowships were announced as follows:

Linnea Anderson, Massachusetts
Ruth Brossman, Pennsylvania
Camille Brown, Wyoming
Theron Butterworth, Louisiana
Bessie Creecy, North Carolina
Nell Jane Guthrie, Oklahoma
Dorothy B. Hamilton, Washington, D. C.
Dorothy Ann Huskey, Tennessee
Margaret Idema, Texas
Marion Jensen, Tennessee
Maizie Jean Jones, North Carolina
Rae E. Kaufer, Maryland
Mary Lou King, Florida
Mary Evelyn Leith, South Carolina
Raymond Leonard, North Carolina
Edith R. Lindly, Oklahoma
Wilma Mailander, Nebraska
Jean McCartney, Indiana
Leila McCormick, North Carolina
Frances Montgomery, Arizona
Hazel Mundorff, Nebraska
Gladys C. Omohundro, Virginia
Julia O'Neill, Illinois
Maude Parker, Virginia
Mary H. Parks, Kansas
Jeanette Simmons, Iowa
Louisa Spell, Georgia
Helen Wilson, North Dakota

CLAXTON APPOINTED CANADIAN MINISTER OF NATIONAL HEALTH AND WELFARE

Prime Minister W. L. Mackenzie King, of the Dominion of Canada, recently announced in Ottawa the appointment of Brooke Claxton as Minister of National Health and Welfare. Mr. Claxton has been parliamentary assistant to the Prime Minister and enters the Cabinet for the first time. Among other responsibilities he will set up the machinery for the administration of family allowances.

WESTERN RESERVE OFFERS GRADUATE WORK IN HEALTH EDUCATION

Professor James A. Doull of the Department of Hygiene and Bacteriology, Division of Public Health, Western Reserve University Graduate School, Cleveland, Ohio, has announced that students interested in health education as a career and who have had college courses in chemistry, physics, and biology, may be accepted for graduate work after consultation with Dr. Doull, chairman of the department. Basic courses are given in this and other departments in the School of Medicine and in other schools of the university. The laboratories are well equipped and there is an exceptionally good library in the department, supplementing the Cleveland Medical Library, which is on the campus. Practical instruction is under the supervision of Dr. Bruno Gebhard, Associate in Health Education and Director of the Cleveland Museum of Health. Two academic years are required for the Master's degree except for persons with unusual preparation.

NEW YORK STATE ADOPTS CHEESE REGULATIONS

Effective November 15, 1944, the New York State Sanitary Code has been amended to prevent the sale of uncured cheddar type cheese made from raw milk. According to *New York State Health News*, the need for this protection is indicated by the occurrence this year of four outbreaks of typhoid fever in the United States and Canada traced to cheese as compared with ten such outbreaks reported during the preceding 20 years. It appears that the unusual demand for cheese and the overcrowding of cold storage ware-

houses, together with the fact that uncured cheese may be sold at the same ceiling price as cured cheese and that the public likes the mild, unripened cheese, has resulted in cheese made from raw milk reaching consumers before sufficient time has elapsed to permit typhoid organisms, if present, to be devitalized.

Unless the cheese itself is subjected to heat treatment equivalent to pasteurization and processing, it is required either to be made from milk, skim milk, or cream which has been pasteurized, or the cheese is required to be ripened or cured at a temperature of not less than 35° F. for a period of not less than 60 days from the date of manufacture. The regulations require the suitable labeling of all cheese sold in New York State.

BAILEY B. BURRITT RETIRES

Mr. Bailey Burritt of New York, N. Y., retired November 1 as Chairman of the Executive Council of the New York Community Service Society. President Roosevelt and other leaders joined with representatives of the nation's health and welfare agencies in praising the career of Mr. Burritt at a testimonial dinner. Mr. Burritt was organizer and director of the Home Service Division of the American Red Cross for the A.E.F. in France during the first World War. He has served with the Community Service Society and its predecessor agency for thirty-one years.

DDT CONSIDERED SAFE FOR INSECTICIDAL USE

Dr. Paul A. Neal, Chief of the Research Section of the Division of Industrial Hygiene, U. S. Public Health Service, reported on November 2 that, in spite of its inherent toxicity, DDT in the desired insecticidal concentrations in air is of such low toxicity that it will not cause injurious effects in human beings. According to Dr. Neal, the studies conducted at the Industrial Hygiene Research Laboratory of the National Institute of Health showed that DDT in concentrations up to 10 per cent in inert powders for dusting clothes, as in the extermination of lice, offers no serious health consequences. He believed it safe to use as a fly spray. A clinical and laboratory study of three men who had several months of continuous occupational exposure to DDT in its various forms as an insecticide failed to indicate any definite toxic effects from exposure to the drug. In experiments with dogs, daily insufflation of 100 milligrams of DDT per kilogram caused definite signs of poisoning in only one out of the three animals tested after a period of 18 days. Dr. Neal pointed out, however, that massive doses, either by mouth or by skin absorption will cause toxic reactions. Heavy contamination of foods should be avoided. He concluded that, despite the inherent toxicity, the use of DDT in 1 to 5 per cent solutions in 10 per cent cyclohexanone with 85 to 95 per cent Freon should offer no serious health hazards when used as an insecticide.

Major General Norman T. Kirk, Surgeon General of the U. S. Army, reported to the Association of Military Surgeons of the United States at its meeting in New York City on November 3, that DDT had been effective in the control of malaria when sprayed from airplanes at tree-top height. According to Dr. Kirk, DDT will kill adult mosquitoes and flies as well as those in the larval stages when it is used in breeding areas. He reported that Saipan had been a mass of flies and mosquitoes on D Day but that the island was now free of both. He reported that the aerosol bomb kills all insect vectors in closed spaces, particularly the mosquito and fly, and is used extensively to rid airplanes of those

vectors. A 5 per cent solution of DDT sprayed on the walls of barracks, kitchen, or huts will kill all mosquitoes and flies alighting thereon for months after each spraying. He credited DDT with preventing the threatened epidemic in Naples.

NEW PUBLIC HEALTH APPOINTMENTS IN CUBA

It has been announced that Dr. Jose Antonio Presno has been appointed as the new Secretary of Health for Cuba.

Dr. Pedro Nogueira has been appointed Director of Health. Dr. Nogueira was formerly associated with the Rockefeller Foundation.

The Sub-Secretary of Health is Dr. Fernando Lopez.

Dr. Domingo F. Ramos continues as Director of the Finlay Institute in Havana.

NOBEL PRIZES AWARDED FOUR DOCTORS

Announcement was made in Stockholm, Sweden, on October 26, of the award of Nobel prizes in medicine to four scientists, all of them now in the United States, as follows:

The 1944 award in physiology and medicine was made to Dr. Joseph Erlanger, Professor of Physiology at Washington University School of Medicine, St. Louis, Mo., and to Dr. Herbert S. Gasser of New York, N. Y., Director of the Rockefeller Institute for Medical Research. This award covers studies of the functions of individual nerve threads.

The 1943 award was also divided equally between Dr. Edward A. Doisy, Professor of Biochemistry in the St. Louis University School of Medicine and Dr. Henrik Dam of Copenhagen, Denmark, who is now at the Strong Memorial Hospital, Rochester, N. Y. The reward covers studies of these scientists with relation to vitamin K which is concerned in the coagulation of blood.

CONFERENCE OF PROFESSORS OF PREVENTIVE MEDICINE

At the second annual meeting of the Conference of Professors of Preventive Medicine held in New York City on October 2, the following officers were elected:

President, William Harvey Perkins, M.D., Dean, Jefferson College
Secretary, Thomas D. Dublin, M.D., Long Island School of Medicine

Dr. Dublin will welcome suggestions for the 1945 program from qualified workers in the field.

DR. FELIX HEADS MENTAL HYGIENE DIVISION, U.S.P.H.S.

Dr. Thomas Parran on November 1 announced the appointment of Dr. Robert H. Felix as Medical Director in charge of the Mental Hygiene Division in the Bureau of Medical Services, U. S. Public Health Service, Bethesda, Md. Dr. Felix relieves Dr. Lawrence Kolb who retired October 31. Dr. Felix is a native of Kansas, born in 1904, is a graduate in medicine of the University of Colorado in 1930, and was commissioned in the regular corps of the Public Health Service in 1933. He received an M.P.H. from Johns Hopkins in 1942.

DR. SPENCER AWARDED MEDAL FOR CANCER SERVICE

Roscoe R. Spencer, M.D., Chief of the National Cancer Institute, Bethesda, Md., has been awarded the Clement Cleveland Award for outstanding service during 1944 in the effort to control cancer by education. The Palladium medal named in honor of one of the founders of the American Cancer Society, was presented at the annual meeting of the New York City Cancer Committee which was opening a drive for $100,000 in an annual budget directed toward preventing the death of 40 persons a day from cancer in New York City.

PERSONALS

Central States

STEPHEN C. BRADLEY, M.D., has been placed in charge of the Department of Contagious Diseases of the Terre Haute (Ind.) Board of Health, succeeding the late MAURICE B. VAN CLEAVE, M.D.

ARTHUR V. DE NEVEU, M.D., recently resigned as Medical Director of the Johnston Emergency Hospital, Milwaukee, Wis., to enter private practice; he held the position for 18 years.

ORLEN J. JOHNSON, M.D.,† since August, 1941, Assistant Secretary, Council on Industrial Health of the American Medical Association, Chicago, Ill., has resigned to enter a residency in surgery at St. Luke's Hospital.

ROLL H. MARKWITH, M.D.,* Columbus, Ohio, retired as Director of the Ohio Department of Health on August 21, when his five year term expired, to become Assistant Medical Director of the Clinical Laboratory owned and operated by ANSON L. BROWN, M.D., of Columbus.

LOUIS K. PECK, M.D., has been appointed Health Officer of Crawford, Kalkaska, Missaukee, and Roscommon Counties, with headquarters in Lake City, Mich.

CLARKE ROGERS, M.D., Indianapolis, Ind., has been appointed a member of the Indianapolis Board of Health to succeed ARTHUR F. WEYERBACHER, M.D., resigned.

Eastern States

EARL C. BONNETT, M.D., of New York, N. Y., formerly Associate Medical Director of the Metropolitan Life Insurance Company, has been appointed Medical Director of the Company by the Board of Directors. Dr. Bonnett succeeds the late CHARLES L. CHRISTIERNIN, M.D., who died on October 18.

LOUIS I. DUBLIN, PH.D.,* New York, second Vice President and Statistician of the Metropolitan Life Insurance Company, on October 2 became temporary Executive Officer of the American Red Cross and will serve in this capacity until the return of BASIL O'CONNOR, who is now on an inspection tour of Red Cross operations in France and Great Britain. Dr. Dublin is on loan to the Red Cross for a limited period. His normal assignment is as assistant to Mr. O'Connor, acting as coördinator of the various operating divisions of the Red Cross. In his new appointment Dr. Dublin will devote full time to Red Cross activities.

OSCAR A. DUDLEY, M.D., of Shrewsbury, Mass., Massachusetts Public Health Officer for the Worcester district for 25 years, who was decorated with the Croix de Guerre by the French Government for heroism in the first World War, died on October 28, 1944.

ELIZABETH M. GARDNER, M.D.,* Albany, N. Y., Director of the Division of Maternity, Infancy and Child Hygiene, State Health Department, retired from state service.

EDWARD B. KRUMBHAAR, M.D., Professor of Pathology in the University of Pennsylvania School of Medicine and Graduate School, has been elected an honorary fellow of the Royal Society of Medicine, London, "in recognition of his distinguished services to science."

WILLIAM E. STANLEY,* formerly Professor of Sanitary Engineering at Cornell University, and well known as a consulting sanitary engineer, has been appointed professor in charge of sanitary engineering courses in the department of civil and sanitary engineering at the Massachusetts Insti-

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* Fellow A.P.H.A.
† Member A.P.H.A.

tute of Technology, Cambridge, Mass. Professor Stanley recently returned from North Africa where he served as a major in the Corps of Engineers and had assignments as Water Supply Officer for 7 months during the North African Invasion and the Tunisian Campaign and Chief of Construction in the Service of Supply for 8 months.

Southern States

PEYTON M. CHICHESTER, M.D., Assistant Director of Local Health Services with headquarters in Richmond, Va., of the State Health Department, has been named to a similar position at Abingdon to succeed HAROLD M. KELSO, M.D.,† who has accepted a position with the Knoxville, Tenn., Health Department.

LYNN M. GARNER, M.D.,† formerly Health Officer of District Number 8 with headquarters at Higginsville, Mo., has been appointed Director of the Division of Child Hygiene for the State Board of Health, Jefferson City, Mo.

BRIGADIER GENERAL LEON A. FOX,* U.S.A., has been awarded the Typhus Commission Medal for "exceptionally meritorious service rendered first as Director and later as Field Director the United States of America Typhus Commission." General Fox directed the Typhus Control Project of Naples in December, 1943, which brought the epidemic in southern Italy under control within a month.

ROBERT H. FOSDICK, JR., M.D., New Albany, Miss., has resigned as Health Officer of Marshall and Union Counties; he will enter private practice in New Albany.

ROBERT B. GRIFFIN, M.D.,† has been named Director of the Jackson and Madison County Health Department, Tenn., to succeed LAMAR A. BYERS, M.D., who accepted a similar position in Coos County, Ore.

CHARLES J. GRUBIN, M.D.,† Arlington, Va., has been named Health Officer of Madison County, Ky., with offices in Richmond.

BARBARA HUNT, M.D.,† Meridian, Miss., has been appointed Health Officer of Chickasaw County.

RUTHERFORD O. INGHAM, M.D.,* Johnson City, Tenn., has resigned as Director of the Washington County Health Department. He will be succeeded by MARION G. FISHER, M.D.,† Jonesboro, Tenn.

JOHN P. KENNEDY, M.D.,* recently retired as Health Officer of Atlanta, Ga., a position he held for 43 years.

G. P. MORISON, M.D., has been appointed part-time Health Officer of Berkeley County, W. Va., succeeding H. R. DUPUY, M.D.†

JOSEPH T. NARDO, M.D.,† Somerville, Tenn., has resigned as Director of the Fayette County Department of Health to reënter the U. S. Public Health Service.

WARD L. OLIVER, M.D., of Pointe Pleasant, W. Va., Health Officer for District Number 3, has been transferred to Morgantown as Health Officer of Monongalia County. He succeeds WILLIAM B. BAILEY, M.D.,† who was transferred to Norfolk, Va.

MARIE-LOUISE M. PARETI, M.D.,† has resigned as Acting Chief of the Section of Maternal and Child Health of the Louisiana State Board of Health to become assistant to JAMES R. REINBERGER, M.D., Memphis, Tenn.

FRAY O. PEARSON, M.D.,† Director of the Chattanooga-Hamilton County Health Department, Tenn., has resigned to enter private practice and become associated with the Earl Campbell Clinic, effective October 1.

ROBERT E. ROTHERMEL, M.D.,† has been appointed Director of the Har-

* Fellow A.P.H.A.
† Member A.P.H.A.

rison County Health Department, Miss., succeeding HENRY W. KASSEL, M.D.,† who has been assigned to a position in Guatemala City, Guatemala.

WILLIAM P. SCARLETT, M.D., Director of the Division of Venereal Diseases in the Corpus Christi Health Department, has been appointed in charge of the Wichita County Health Unit, Texas, succeeding DAVID F. BRADLEY, M.D., who has been appointed Medical Officer in charge of the State Quarantine Hospital, Corpus Christi.

ELVIRA A. CORRALES-SMITH, M.D., Monroe, La., has been appointed Director of the Arcadia Parish Health Unit.

LLOYD L. TATE, M.D., of St. Louis, Mo., has been named Health and Hygiene Director of the St. Louis public schools.

GEORGE WALDEN, M.D., has been appointed Health Officer of Lincoln County, W. Va., succeeding G. L. MCCLELAN, M.D.,

FREDERICK J. WAMPLER, M.D.,* has resigned as Professor of Preventive and Industrial Medicine at the Medical College of Virginia, Richmond, to become Medical Director of the Rustless Iron and Steel Corp., Baltimore, Md.

DON E. WILDER, M.D., Grayson, Ky., has been named Health Officer of Breathitt County.

WALLACE BYRD, M.D.,† Williamstown, Ky., has resigned as Health Officer of Grant County.

WILLIAM L. WRIGHT, M.D., Louisville, Ky., has been placed in charge of the Bell County Health Department, Pineville.

Western States

JACOB C. GEIGER, M.D.,* of San Francisco, Calif., on October 14 received the honorary degree of Doctor of Science from Tulane University of Louisiana School of Medicine, New Orleans. Dr. Geiger gave the commencement address on this occasion.

DAVID E. SMALLHORST, M.D.,* Glendale, Calif., Health Officer for the San Fernando District, has retired under civil service rules. He has been connected with the Los Angeles County Health Department since 1926.

DEATH

DR. RICHARD V. HENDERSON of the National Institute of Health, Bethesda, Md., died October 20 at the age of 32 while engaged in developing a vaccine against scrub typhus. His death apparently resulted from a laboratory infection.

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* Fellow A.P.H.A.
† Member A.P.H.A.

CONFERENCES AND DATES

American Medical Association—91st Annual Session. Philadelphia, Pa. June 18–22, 1945.

American Society of Heating and Ventilating Engineers—51st Annual Meeting. Hotel Statler, Boston, Mass. January 22–24, 1945.

American Water Works Association—New York Section—Mid-winter Luncheon Meeting, Pennsylvania Hotel, New York, N. Y. January 17, 1945.

Annual Seminar on Reading Disabilities. Pennsylvania State College, State College, Pa. January 29–February 2, 1945.

Florida Public Health Association. Gainesville, Fla. December 4–6.

National Council of Chief State School Officers—Illinois Education Association. Springfield, Ill. December 27–29.

National Council of State and Local Public Assistance and Welfare Administrators. Chicago, Ill. December 12–13.

National Restaurant Week—May 6–12, 1945.

National Society for the Prevention of Blindness—Annual Meeting. Russell Sage Foundation, New York, N. Y. December 14.

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. . . TO MEN OF GOOD WILL

That all men everywhere may breathe again as free men ☆ ☆ That suffering and oppression may vanish forever from the earth ☆ ☆ That all men may regain their self-respect ☆ ☆ That the labor of all men may be devoted to the good of mankind ☆ ☆ That the pain and the hurt of all men be mercifully healed ☆ ☆ That all may live in peace forever!

Wyeth

We, men and women of Wyeth . . . as one voice, make this wish. To the doctors and nurses in our Army and Navy in the far corners of the earth; to our doctors and nurses at home; to our druggists; we at Wyeth are proud to have been of service. Proud and honored to have received our third Army-Navy "E". To you, men and women of mercy—our hand and our utmost support at all times.

Even Two Days Without Adequate Protein

are apt to produce manifestations of hypoproteinemia, loss in circulating plasma protein, lassitude, and general debility.* Protein foods deserve priority, not only in the dietaries of illness, but in the normal diet as well. The proteins of meat are of the highest biologic quality, the right kind for every protein need.

The Seal of Acceptance denotes that the nutritional statements made in this advertisement are acceptable to the Council on Foods and Nutrition of the American Medical Association.

*"Investigations . . . have shown the importance of protein even during short periods of deprivation, and hence it probably deserves just as much priority as water, electrolytes and vitamins. . . ." (Elman, R.: The Importance of Giving Protein Priority in Restricted Diets, Editorial, Gastroenterology 2:360 [May] 1944). •"Two days of protein deprivation . . . lowers the blood protein definitely." (Cutting, W. C., and Cutter, R. D.: Effect of a Low Calorie, Low Protein Diet on Blood Proteins, Proc. Soc. Exper. Biol. & Med. 32:1053 [April] 1935). •"During both series of observations, all four subjects complained of lassitude and a feeling of general debility during the third and fourth day of the protein deficient regimen." (Mueller, A. J.; Fickas, D., and Cox, W. M., Jr.: Minimum Maintenance Requirement of an Enzymic Casein Hydrolysate, Bull. Johns Hopkins Hosp. 72:110 [Feb.] 1943).

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Satisfactory media for culturing pathogenic bacteria from the blood stream are essential for a high percentage of positive isolations in bacteriemias.

Bacto-Brain Heart Infusion

is recommended for cultivation of many organisms which are generally considered difficult to propagate. It is an excellent liquid medium for cultivation of the Streptococci, Pneumococci and Meningococci. The addition of 0.1 per cent agar greatly enhances the value of the medium for blood culture work.

Bacto-Tryptose Phosphate Broth

a peptone medium without tissue infusion, supports luxuriant growth of many fastidious bacteria. Like Brain Heart Infusion, it is an excellent liquid substrate for Streptococci, Pneumococci and other pathogenic bacteria.

Bacto-Blood Agar, Base

enriched with sterile defibrinated blood, permits development of clear and distinct zones of hemolysis by colonies of hemolytic bacteria. Blood Agar prepared from this medium is especially useful for identification of Streptococci.

Bacto-Tryptose Agar

is an excellent general culture medium for many types of bacteria. It is especially well suited for direct isolation of organisms from the blood stream. The dextrose present in this medium supports early and luxuriant growth of bacteria but renders it unsatisfactory as a base for blood agar for differentiation of cultures on the basis of hemolysis.

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